**THE TAMILNADU Dr. M.G.R. MEDICAL UNIVERSITY**

**CHENNAI, TAMIL NADU**


**THANJAVUR MEDICAL COLLEGE AND HOSPITAL**

**THANJAVUR**

**Dissertation on**

# "DEFENSIVE COPING AND QUALITY OF LIFE IN CHRONIC KIDNEY DISEASE PATIENTS IN A TERTIARY CARE CENTRE"

A CROSS – SECTIONAL STUDY

**DISSERTATION SUBMITTED FOR DOCTOR OF MEDICINE**

**BRANCH – XVIII (PSYCHIATRY)**

**MAY 2018**

## CERTIFICATE

This to certify that the Dissertation entitled **"DEFENSIVE COPING AND QUALITY OF LIFE IN CHRONIC KIDNEY DISEASE PATIENTS IN A TERTIARY CARE CENTRE"** A CROSS – SECTIONAL STUDY is a bonafide record work done by **Dr. CHITRA DEVI.R** in the department of psychiatry, Thanjavur Medical College, Thanjavur, during his Post Graduate Course, under my direct supervision and guidance. This is submitted as partial fulfilment for the requirement of **M.D., Degree Examination - Branch XVIII (Psychiatry)** to be held in May 2018 under **The Tamil Nadu Dr. M.G.R. Medical University.**

Professor & Head
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Thanjavur.

The Dean,
Thanjavur Medical College,
Thanjavur.

## DECLARATION

I, **Dr. CHITRA DEVI.R,** solemnly declare that the dissertation titled **"DEFENSIVE COPING AND QUALITY OF LIFE IN CHRONIC KIDNEY DISEASE PATIENTS IN A TERTIARY CARE CENTRE"** A CROSS – SECTIONAL STUDY has been prepared by me. I also declare that this bonafide work or a part of this work was not submitted by me or any other for any award, degree, diploma to any other University board either in India or abroad.

This is submitted to The Tamil Nadu Dr. M. G. R. Medical University, Chennai, in partial fulfilment of the rules and regulation for the award of M.D degree Branch – XVIII (Psychiatry) to be held in MAY- 2018.

**Place:** Thanjavur (Dr. CHITRA DEVI.R)

**Date:**

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DEFENSIVE COPING AND QUALITY OF LIFE IN CHRONIC KIDNEY DISEASE AMONG INPATIENTS IN TERTIARY CARE HOSPITAL

**submitted by Dr.** R. CHITRADEVI **of**

**Dept. of** PSYCHIATRY **Thanjavur Medical College, Thanjavur**

**was approved by the Ethical Committee.**

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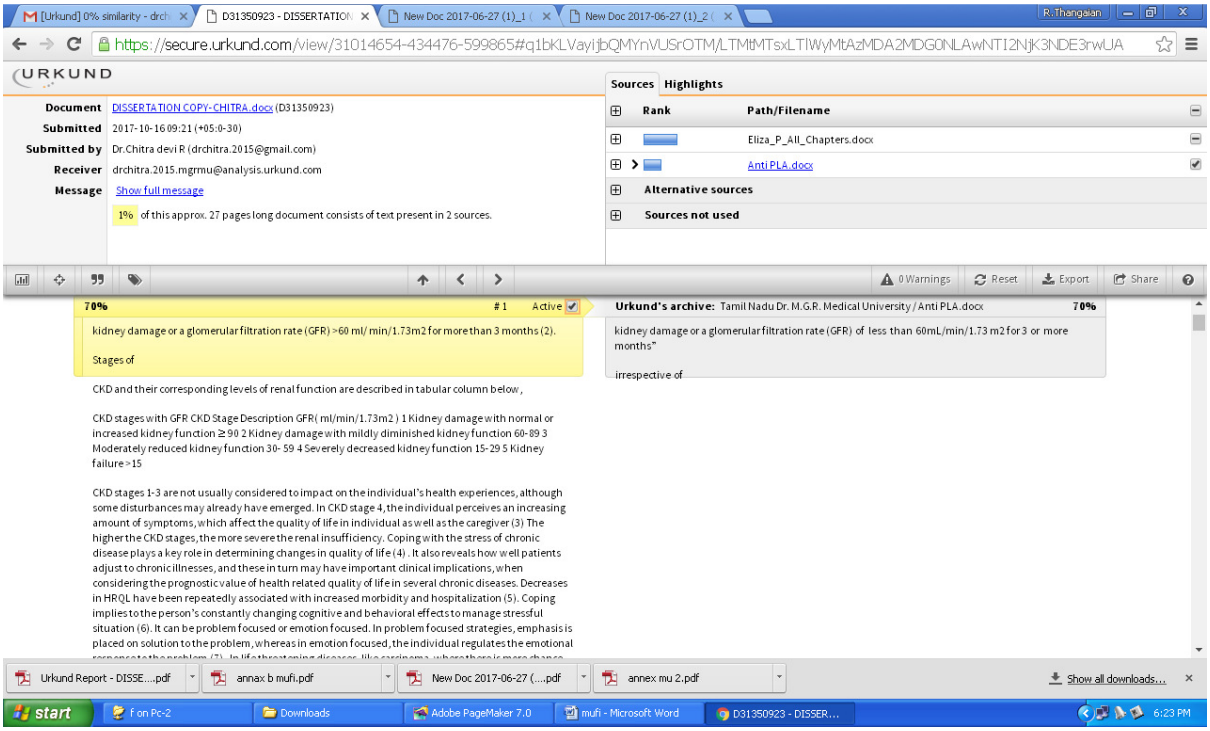
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Active
kidney damage or a glomerular filtration rate (GFR) >60 ml/ min/1.73m2 for more than 3 months (2).
Stages of
CKD and their corresponding levels of renal function are described in tabular column below ,
CKD stages with GFR CKD Stage Description GFR( ml/min/1.73m2 ) 1 Kidney damage with normal or increased kidney function ≥ 90 2 Kidney damage with mildly diminished kidney function 60- 89 3 Moderately reduced kidney function 30- 59 4 Severely decreased kidney function 15-29 5 Kidney failure >15
CKD stages 1-3 are not usually considered to impact on the individual's health experiences, although some disturbances may already have emerged. In CKD stage 4, the individual perceives an increasing amount of symptoms, which affect the quality of life in individual as well as the caregiver (3) The higher the CKD stages, the more severe the renal insufficiency. Coping with the stress of chronic disease plays a key role in determining changes in quality of life (4) . It also reveals how well patients adjust to chronic illnesses, and these in turn may have important clinical implications, when considering the prognostic value of health related quality of life in several chronic diseases. Decreases in HRQL have been repeatedly associated with increased morbidity and hospitalization (5). Coping implies to the person's constantly changing cognitive and behavioral effects to manage stressful situation (6). It can be problem focused or emotion focused. In problem focused strategies, emphasis is placed on solution to the problem, whereas in emotion focused, the individual regulates the emotional
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## LIST OF ABBREVATION

| | |
|---|---|
| HRQOL | Health – related quality of life |
| PHQL | Physical Health – related quality of life |
| MHQL | Mental Health – related quality of life |
| e-GFR | estimated Glomerular Filtration rate |
| CKD | Chronic Kidney Disease |
| PCS | Physical composite summary |
| MCS | Mental composite summary |
| CVD | Cardiovascular Disease |
| ESRD | End stage renal Disease |
| HD | Hemo-dialysis |
| R/ED | Rational/ Emotional Defensiveness |
| RRT | Replacement therapy |
| KTx | Kidney Transplantation |
| IQOL | Individualized quality of life |
| UKPDS | United Kingdom prospective diabetes study |
| SEIOL | Schedule for the Evaluation of individual quality of life |
| DM | Diabetes Mellitus |

## CONTENTS

## INTRODUCTION

Chronic kidney disease (CKD), is a major health problem worldwide .The prevalence that increases with age [1], and has a significant negative effect on the quality of life. It is a life- threatening condition that persists for an extended period of time and requires life- long pharmacological as well as dietary restrictions.

Chronic kidney disease is one of the most common and largely preventable diseases. Many of the risk factors are modifiable, such as hypertension, tobacco smoking, overweight and obesity.

Prevalence of CKD, based on their stages 1,2,3,4 and 5 were 7%, 4.3%, 4.3%, 0.8 % and 0.8% respectively.

Coping with the stresses of chronic diseases have a range of potential impact on a person's individual circumstances, including Quality of life and broader social and economic effects. Chronic kidney disease is defined as the presence of kidney damage or a glomerular filtration rate (GFR) <60 ml/ min/1.73$m^2$ for more than 3 months [2].

Stages of CKD and their corresponding levels of renal function are described in tabular column below,

**CKD stages with GFR**

| CKD Stage | Description | GFR( ml/min/1.73m$^2$ ) |
|---|---|---|
| 1 | Kidney damage with normal or increased kidney function | ≥ 90 |
| 2 | Kidney damage with mildly diminished kidney function | 60-89 |
| 3 | Moderately reduced kidney function | 30- 59 |
| 4 | Severely decreased kidney function | 15-29 |
| 5 | Kidney failure | <15 |

CKD stages 1-3 are not usually considered to impact on the individual's health experiences, although some disturbances may already have emerged. In CKD stage 4, the individual perceives an increasing amount of symptoms, which affect the quality of life in individual as well as the caregiver [(3)] The higher the CKD stages, the more severe the renal insufficiency.

Coping with the stress of chronic disease plays a key role in determining changes in quality of life [(4)] . It also reveals how well patients adjust to chronic illnesses, and these in turn may have important clinical implications, when considering the prognostic value of health related quality of life in several chronic diseases.

Decreases in HRQL have been repeatedly associated with increased morbidity and hospitalization [5]. Coping implies to the person's constantly changing cognitive and behavioral effects to manage stressful situation [6]. It can be problem focused or emotion focused.

In problem focused strategies, emphasis is placed on solution to the problem, whereas in emotion focused, the individual regulates the emotional response to the problem.[7] . In life threatening diseases, like carcinoma, where there is more chance for chronic stress, emotion focused coping strategies are mostly adopted [8] by the patients.

In this background, the present study aims to assess defensive coping and quality of life in patients suffering from chronic kidney disease in different clinical variables. like pre-dialysis dialysis and post-dialysis.

## REVIEW OF LITERATURE

A low Health – Related Quality of Life (HQL) is associated with the evolution of mortality in chronic kidney disease (CKD) patients, during end-

stages of the disease. Therefore research on psychological determinants of HQL is emerging.

The review has been organized under the following headings for the purpose of clarity:-

A. Quality of Life

B. Coping Strategies adopted

C. Co-Morbidities associated with chronic disease

**Quality of Life:**

The World Health Organization (WHO), definition of Health "as a complete state of physical, mental and social well being and not merely an absence of disease or infirmity [(14)]" This model insists the importance of psychological, social and physical functioning to the perceived HRQOL[(15).] The conceptual approach includes HRQOL measurements that are based on one's "subjective" sense of well being and are commonly used as indicators of successful medical treatment.

In a study conducted among 155 patients in stages 1-5 of CKD and 36 who were in hemo-dialysis, he concluded that QOL is decrease d in renal patients in the early stages of disease. No association was detected between the stages of the disease and the quality of life [(16)]

In another cross- sectional study conducted among 61CKD patients receiving pre- dialysis treatment, Frail and non-Frail CKD patients differed significantly in SF-36 domains. There is a need for interventions, targeting the characteristics symptom, to provide better treatment and optimize overall QoL [17].

In a study conducted among 41 patients with chronic kidney disease who had undergone hemo- dialysis, significant decline in QOL was evidenced in these patients. Nevertheless their social functioning was preserved. Results showed that the coping style focused on problem solving was positively correlated with mental health whereas the negative self – focused coping style was inversely related to most dimensions of QOL that were evaluated. Different results were found about, avoidance and religiosity as coping style [18]

In Khaled Abdul –Kader et al study, 90 patients with ESRD and 87 patients with CKD were enrolled; QOL in chronic and End stage kidney disease was assessed. There is a substantial decrement in the physical and psychological well being of patients with CKD [19].

Another cross sectional study was conducted among 151 patients who have undergone PD or HD. They have examined the strength of association between multidimensional individual health –related QOL and psychosocial factors. There were no significant difference in Schedule for the Evaluation of Individual Quality of Life (SEIOL), between subgroups CKD 3and 4. SEIOL

scores correlated with mental well being and inversely correlated with chronic stress and depression [20]

In Agneta A pagels et al study, cross- sectional design with 535 patients in CKD stages 2-5 and 55 controls assessed for HRQOL through SF-36 together with biomarkers. HRQOL dimensions deteriorated significantly with CKD stages with the lowest store in CKD – 5

In all patients HRQOL dimensions deteriorated significantly with CKD stages with lowest scores in CKD 5. Patients in CKD4 demonstrated deteriorated scores with large magnitude in "Physical function", "general health" and PCS compared to the patients in CKD 2-3 [21]

## STUDIES ASSOCIATED WITH *GOOD* HEALTH RELATED QUALITY OF LIFE IN CHRONIC DISEASE

| STUDIES | Studied chronic disease | Sample size | Results |
|---|---|---|---|

| | | | |
|---|---|---|---|
| Adegbola, 2007 | Renal disease, fibromyalgia, AIDS, arthritis heart disease | 545 | Spirituality is associated with good HRQoL |
| Rose et al, 2001 | End stage heart failure(left ventricular assist device surgery) | 129 | Psychological functioning is associate with good HRQoL |
| Azzopardi, 2009 | Coronary heart disease | 48 | Coronary Artery Bypass grafting is associated with good HRQoL |
| Herlitz et al, 2009 | Coronary heart disease | 808 | Early treatment of diabetes, obesity & left ventricular dysfunction are associated with good HRQoL |
| Oshumi et al, 2009 | Breast cancer | 100 | Breast conserving treatment younger age & higher education are associated with good HRQoL |

## STUDIES ASSOCIATED WITH ***POOR*** HEALTH RELATED

## QUALITY OF LIFE IN CHRONIC DISEASES

| **STUDIES** | **Studied chronic disease** | **Sample size** | **Results** |
|---|---|---|---|

| | | | |
|---|---|---|---|
| Thommasen & Zhang, 2006 | Diabetes, hypertension, hyperlipidemia, depression/anxiety | 675 | Coexisting chronic disease leads to poor HRQoL |
| Strine et al, 2008 | Asthma , arthritis, diabetes, heart disease | 13.483 | Adverse health risk behaviors(smoking, obesity, physical inactivity and heavy drinking) lead to poor HRQoL |
| Katz & McHorney, 2002 | Hypertension, diabetes, congestive heart failure, recent myocardial infarction, depression | 3.445 | Insomnia is associated with worsened HRQoL |
| Falasca et al , 2009 | Hepatitis C patients | 20 | Depressive symptoms are associated with poor HRQoL |
| Haller & Milles, 2003 | HIV Psychiatric patients | 190 | Suicidality has an association with poor HRQoL |
| Casellas et al, 2002 | Inflammatory bowel disease | 354 | Symptomatic activity and the need for hospitalization are associated with poor HRQoL |
| Vinck et al, 1997 | Multiple sclerosis, coronary artery disease | 18 | Subjective cognitive impairment is are associated with poor QoL |
| Newman et al, 2001 | Post operative coronary artery bypass gragting | 261 | Neurocognitive functioning is associated with poor HRQoL |
| Denollet et al, 2000 | Coronary artery disease | 319 | Symptoms of depression and Type D personality are associated with poor HRQoL |
| Theofilou, 2011 | Renold disease end stage | 144 | Sociodemographic variables (female , older, less educated,& |

| | | | |
|---|---|---|---|
| | | | divorced / widow ) are associated with poor HRQoL |
| Carod-Artal et al 2000 | Stroke patients | 90 | Post stroke disability is associated with poor HRQoL |
| Rebello et al , 2000 | Kidney transplanted patients<br><br>Hemodialysis patients | 210<br><br>170 | Sociodemographic variables (female , older, less educated,& divorced / widow ) are associated with poor HRQoL |
| Forsberg et al, 1996 | Kidney ,Liver & Heart transplanted patients | 76 | Bodily pain effects HRQoL |

**Coping strategies :**

In a Anna kattsouda et al. Study conducted among 98 CKD patients,79 were in pre-dialysis and 19 were in dialysis stage 3 and 4.Health related quality of life and defensive coping was assessed .Patient on dialysis had worse scores on SF-36 scales measuring physical aspects of HRQOL.

A higher defensive coping score was significantly associated with a lower score on the mental component summary scale of the SF-36, the result provided evidence that emotional defensiveness as a coping style tends to differentially affect the mental and physical component of HRQOL in CKD[(22),]

**Co-Morbidities associated with chronic disease**

Most of the studies found that hypertensive individuals with co –existent co- morbidities tend to have lower HRQOL than those with hypertension alone, and identified the number of co-morbid illnesses as an independent determinant of HRQOL.

Hypertension is both a cause and a complication of CKD accounting for 26.8% of incident end-stage renal disease (ESRD) cases in 2006 [23] , affecting 50% to 75% of the CKD population [24] .It is also well recognized as a risk factor for CKD progression[24]. A prospective study conducted in the urban Japanese population suggested that hypertensive individuals with even mild CKD with estimated glomerular filtration rate of 50-59 ml/min/1.73 $m^2$ are at greater risk of stroke than hypertensive individuals with normal e-GFR (>60 ml/min/1.73$m^2$), and that hypertensive subjects with more severe renal impairment were at an even greater risk for stroke [25]

In general studies examining the impact of single or multiple co-morbid illnesses on HRQOL have suggested that greater numbers of co-morbid illnesses are associated with lower HRQOL. There has been a comprehensive overview of HRQOL in cardiovascular disease through1998 by Sweden and clinch [26].

As in the case for literature regarding other co-morbid illnesses , population based studies have demonstrated that individual who report greater numbers of cardiovascular risk factors(including diabetes mellitus,

hypertension, hyperlipidemia , obesity and smoking) are more likely to rate their overall health as “poor” or “fair” than those with fewer cardiovascular risk factors[27]. The physical domain measurements of HRQOL appear to be most affected by the clustering of cardiovascular risk factors and cardiovascular disease themselves. Bayliss and colleagues examined data from the medical outcome study with respect to longitudinal changes in physical domain measurements in HRQOL of hypertensive patients.

It is notable that a diagnosis of congestive heart failure was associated with larger decrement in physical HRQOL scores than the diagnosis of coronary artery disease.

A Turkish study used the SF-36 to describe the effects of co-morbid conditions on HRQOL in hypertensive individuals [28]. The hypertensive patients had lower SF-36 scores than population norms, and a variety of clinical and demographic factors were found to affect HRQOL scores. Age and female gender were associated with low SF-36(short form Health survey)- subscale scores, while diagnosis of congestive heart failure, cerebro-vascular disease, obesity and angina lowered the scores in the physical domain subscales. Obesity, which is also a cardiovascular risk factor and is often linked with hypertension, was found to be independently associated with impaired physical function in a study by Johansson and colleagues [29].

Studies have established that diabetic patients demonstrate impaired HRQOL [30-32] which is associated with disease severity, duration, diabetic complications and concomitant morbidities [33]. Lloyd and colleagues assessed the influence of complications associated with type 2 diabetes mellitus (DM) on HRQOL [34].The interpretation for these findings was that hypertension is often asymptomatic until later stages of the disease and hence it does not lower HRQOL in patients with DM.

Several other studies have reported notable negative effects of hypertension on HRQOL in type 1 [35] and type 2 [33, 36] diabetics, with the most detrimental influence on the physical [31, 35] and general health domains. Also notable are results from the United Kingdom prospective diabetes study (UKPDS) which reported no association of target blood pressure levels on HRQOL [37]. Hypertension may be associated with lower HRQOL, particularly in domains of physical function.

CKD and particularly ESRD have been defined as provoking a state of prolonged distress [39]. Coping with stress of chronic disease reflects how were patients adopt & adjust themselves chronic illnesses [40]. Several authors confirmed these strategies in spinal card lesion [41] systematic lupus erythematosis [42] and prostate cancer [43]. Decrease in QOL leads to recurrent morbidity and hospitalization [44] as well as limited compliance to treatment regimens [45, 46].

Maladjustment to chronic illness subsequently leads to avoidance and defensive emotion inhibition [47].

Moreover, negative emotions such as denial, negative distraction, remain unresolved and flaring up adverse effects on both physical [49-56] and mental health [57-58]

A recent study by Santos [59] showed that emotion focused coping is associated with worse physical and mental aspect of HRQL among HD patients. According to Roesch and weiner [60] health related quality of life is considered a good indicator of effective coping

## AIM AND OBJECTIVES

- To assess the pattern of coping adopted by chronic patients
- To explore the association of quality of life with their socio-demographic profile
- To analyze the correlation between different clinical variables of chronic kidney disease patient with their quality of life.

- To analyze the relationship between defensive coping and health related QOL among CKD patients in different stages.

## METHODOLOGY

### MATERIALS & METHODS:

### Sources of Data:

A cross - sectional, descriptive study was carried out in the department of Nephrology at Thanjavur Medical College Hospital, Thanjavur. It is a tertiary care centre for five districts. The study included 100 patients suffering from chronic kidney disease. The patients were in different clinical variables (pre-dialysis/ dialysis / post-dialysis).

### Methods of Collection of Data:

Consecutive patient admitted in the department of Nephrology of Thanjavur Medical College Hospital, Thanjavur, with the diagnosis of CKD. GFR calculation was done using Cockcroft-gault formula. Patients were included in the study after obtaining a written informed consent.

All in-patients in the department of Nephrology of Thanjavur Medical College Hospital, Thanjavur, were consecutively included between the periods from October 2016 to April 2017. An ethical committee approval for the study was obtained.

**Inclusion Criteria:**

All patients who,

1. Were aged 20 years and older.
2. Had an intact comprehension.

**Exclusion Criteria:**

1. Participants with any psychiatric disorder
2. H/O Alcohol or any substance use
3. Patients on psychotropic medications

**Tools Used:**

1. Patient Socio- Demographic Data Sheet

2. 36 items Short Form Health Survey (SF-36)

3. Coping checklist

4. Hopkins Symptom Check List -25

**Description of the tools:**

**1. Patient Socio- Demographic and Clinical Data :**

A socio demographic and clinical data sheet was developed to record details about the patient age, gender, education, income, marital status and areas of residence. Information regarding diagnosis with co-morbidities and duration of illness were also included (ANNEXURE-A).

**2. 36 items Short Form Health Survey (SF-36) :**

The 36- item short form health survey (SF-36) was adopted for the assessment of QOL. It is a generic instrument designed to analyze eight health concepts including physical functioning, body pain, and role limitations due to

physical health problems as well as due to emotional or personal problems, emotional well being, social functioning, vitality and general health perceptions. Items from each concepts are summed and rescaled with a standard range of 0-100 higher the score better the QOL.

It also comprises two general indices which refer to the physical component summary (PCS) and mental component summary (MCS) scores. SF36 has been widely used and validated by studies, analyzing health related perceptions, QOL and / or depression in different medical condition [9-11] including CKD [13] SF36 has been translated into several languages and found to possess good psychometric features [14]. (ANNEXURE-C).

**3. Coping checklist**

It is a tool used to interpret coping adopted by the patient in stressful situation. It comprises of 66 items. Translated version of patient mother tongue- Tamil was used. Patients are given instruction that, they must have a specific situation in mind they have experienced in the past week and respond to the statement in this questionnaire. By "stressful" we mean a situation that was difficult or troubling for them, either because they felt distressed about what happened, or because they had to use considerable effort to deal with a situation. The situation may have involved family, job, friends or something else important to them. Before responding to the statement they should think about the details of the

stressful situation, such as where it happened, who has involved, how they acted and why it was important to them.

While they may still be involved in the situation or it could have already happened, it should be the most stressful situation that they have experienced during the week. There are four possible responses 0, 1, 2 and 3.Raw scores describe the coping effort for each of the ***eight types of coping,***

1. Problem Solving
2. Positive distraction
3. Negative distraction
4. Acceptance
5. Religion
6. Denial
7. Emotion focused
8. Social support

Not all 66 items are scaled. High Raw score indicate that the patient often used the behaviors described by that scale in coping with the stressful event. (ANNEXURE-B).

**4. Hopkins Symptom Check List-25**

Hopkins symptom checklist was used to assess the psychological distress. It consists of two scales. Part- I consists of 10-item anxiety scale and part-II

consists of 15- item depression scale. Psychological symptoms during the past 7 days were included in the assessment. The depression scale involves most typical symptoms of depression including emotional, cognitive and somatic correlates. The anxiety scale includes symptoms of nervousness, tension, trembling, feelings of terror and panic as well as some somatic correlates of anxiety.

Items are rated on a 5- point scale of symptom distress, ranging from (1) "not at all" to (4) "extremely". Items from each concept are summed and divided by the total number of responses on that concept with a range of 0 to 4 , where 4 indicates extreme psychological distress. The HSCL-25 inventory and its subscales have been widely used as screening tools for the initial and follow-up assessments of psychopathology in both psychiatric and medical patients. It has shown good internal consistency and convergent validity in several clinical studies at international level. (ANNEXURE-D).

**Statistical Methods:**

Regression analyses were carried out to examine the association between SF-36 dimension and defensive coping style. Pearson's formula was applied to test for correlation among study variables, multiple linear regression was further performed to assess the predictive power of defensive coping for exploring difference in health related QOL, while adjusting for the effects of socio-demographic, clinical and psychological variables.

**RESULTS:**

A total of 114 patients were included in the study. 16 patients refused to participate in this study and they were excluded. Patient who refused were older and more likely to be in the pre-dialysis stage. The study sample consisted of 98 patients. Various socio-demographic clinical and psychological characteristics of the participants samples were analyzed and interpreted. This study includes all CKD patients in stages 4 and stages 5. This study was conducted in Nephrology department, in tertiary care centre in South India. . Patients were administered following three questionnaires,

1. 36 items Short Form Health Survey (SF-36)

2. Coping checklist questionnaire

3. Hopkins Symptom Check List -25.

Along with socio-demographic profile –data sheet.

**TABLE.1. AGE DISTRIBUTION**

| **Particulars** | **No. of respondents (n=98)** | **Percentage (100%)** |
|---|---|---|
| 20 to 39yrs | 9 | 9.2 |
| 40 to 59yrs | 62 | 63.3 |
| 60yrs & above | 27 | 27.6 |

In this sample majority of CKD patients belongs to 40 to 59 years, which accounts to 63.3%.

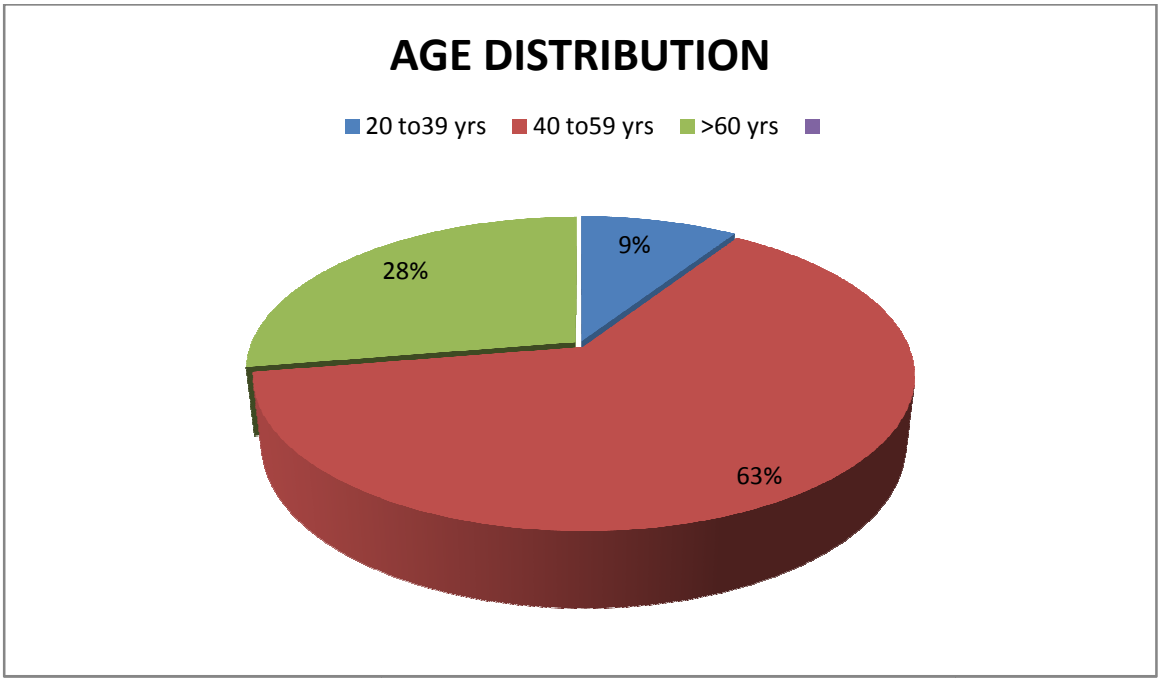



**TABLE.2. GENDER DISTRIBUTION**

| Particulars | No. of respondents (n=98) | Percentage (100%) |
|---|---|---|
| Male | 63 | 64.3 |
| Female | 35 | 35.7 |

This table shows majority of the study group was male, contributing to 64.3%.

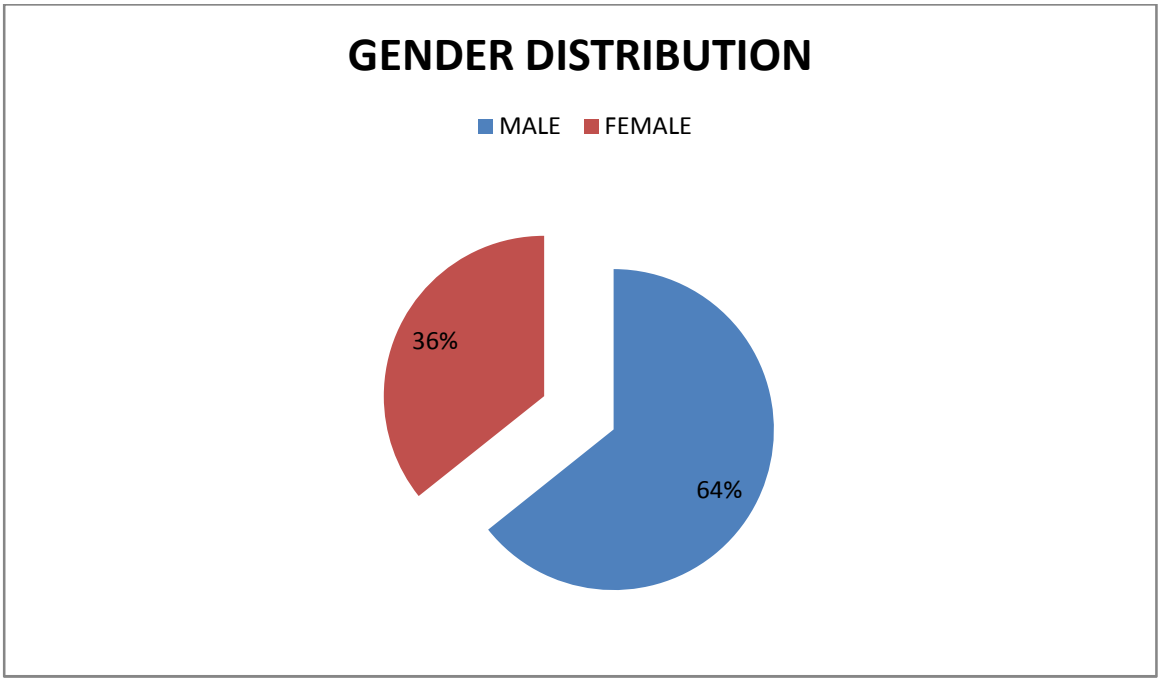



**TABLE.3. EDUCATION STATUS**

| **Particulars** | **No. of respondents (n=98)** | **Percentage (100%)** |
|---|---|---|
| Primary | 17 | 17.3 |
| Middle | 42 | 42.9 |
| Higher sec | 34 | 34.7 |
| Graduate | 5 | 5.1 |

42.9% of the study group has education status up to middle school.

**TABLE.4 MARITAL STATUS**

| Particulars | No. of respondents (n=98) | Percentage (100%) |
|---|---|---|
| Single | 10 | 10.2 |
| Married | 79 | 80.6 |
| Divorced | 5 | 5.1 |
| Widower | 4 | 4.1 |

80.6% of this study group were married.

**TABLE.5 EMPLOYMENT STATUS**

| Particulars | No. of respondents (n=98) | Percentage (100%) |
|---|---|---|
| Employed | 29 | 29.6 |

| | | |
|---|---|---|
| Unemployed | 41 | 41.8 |
| Retired | 7 | 7.1 |
| Domestic | 21 | 21.4 |

This table shows majority of the CKD patients in study group were unemployed, contributing to 41.8%

**TABLE.6 CLINICAL VARIABLES**

| **Particulars** | **No. of respondents (n=98)** | **Percentage (100%)** |
|---|---|---|
| Pre-dialysis | 48 | 49.0 |
| Dialysis | 11 | 11.2 |
| Post-Dialysis | 39 | 39.8 |

This table shows distribution of CKD patient's clinical variables, which revealed 49.0%, belongs to pre dialysis stage.

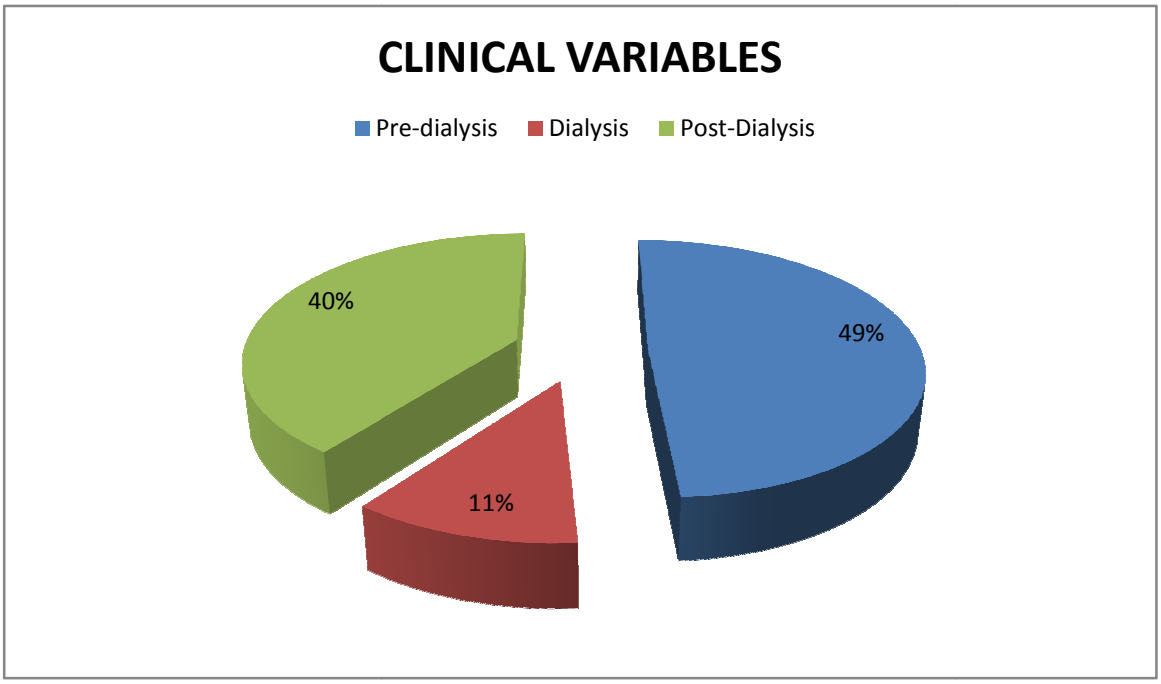



**TABLE.7 TIME SINCE DIAGNOSIS**

| **Particulars** | **No. of respondents (n=98)** | **Percentage (100%)** |
|---|---|---|
| Below 1year | 18 | 18.4 |
| 1 to 3 years | 27 | 27.6 |
| Above 3years | 53 | 54.1 |

Above table reveals that patients suffering from CKD for more than three years duration of illness, accounting to 54.1%.

**TABLE.9 AETIOLOGY**

| Particulars | No. of respondents (n=98) | Percentage (100%) |
|---|---|---|
| Diabetic | 51 | 52.0 |
| Non-Diabetic | 47 | 48.0 |

The table reveals that most of the CKD patients (52.0%) were Diabetic.

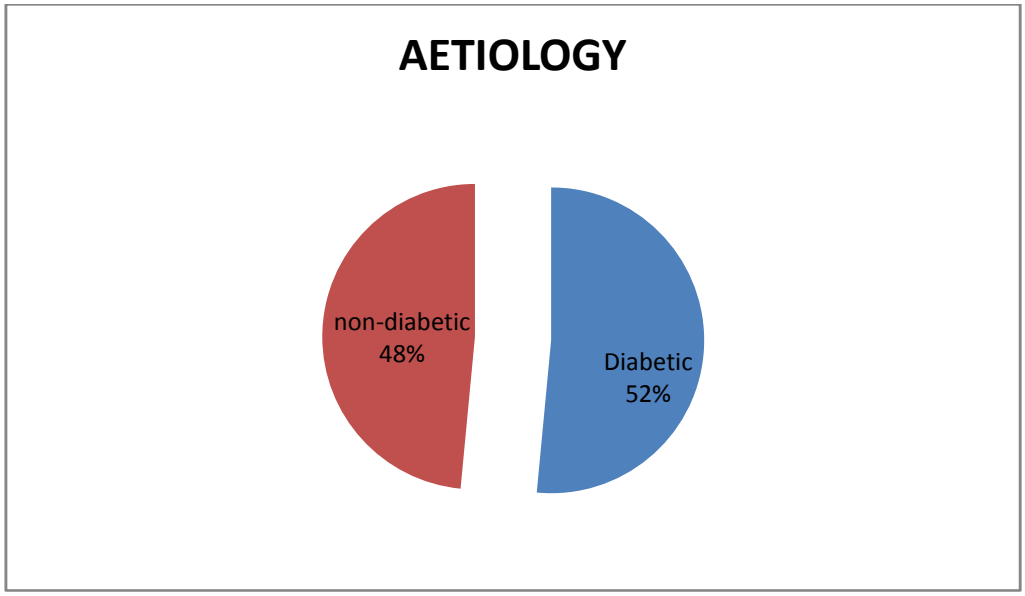



**TABLE.9 STATISTICAL ANALYSIS OF VARIOUS COPING STRATEGIES**

| | N | Min. | Max. | Mean | S.D |
|---|---|---|---|---|---|
| 1. Problem Solving | 98 | 1 | 10 | 4.50 | 1.954 |
| 2. Positive distraction | 98 | 1 | 8 | 3.93 | 1.986 |
| 3. Negative distraction | 98 | 0 | 2 | 0.52 | .692 |
| 4. Acceptance | 98 | 4 | 9 | 6.44 | 1.486 |
| 5. Religion | 98 | 0 | 8 | 3.66 | 2.182 |

| | | | | | |
|---|---|---|---|---|---|
| 6. Denial | 98 | 1 | 8 | 3.92 | 2.014 |
| 7. Emotion focused | 98 | 7 | 27 | 15.14 | 4.937 |
| 8. Social support | 98 | 0 | 6 | 3.87 | 1.584 |
| Coping total | 98 | 22 | 66 | 41.98 | 9.429 |

Statistically significant difference is observed between different parameters of coping checklist ($p<0.001$). Emotion focused accounts to be 15.14 mean score, next Acceptance had a higher mean score followed by problem solving, denial, religion, positive distraction, social support, and negative distraction.

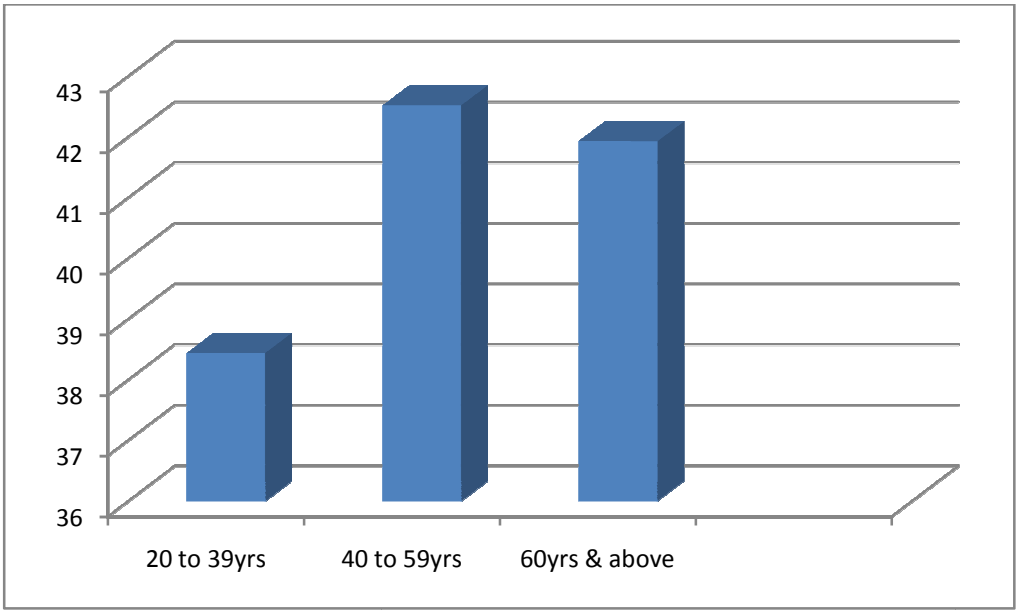
**TABLE.10 Correlation between coping and age**

| **Coping total** | **N** | **Mean** | **Std. Deviation** | **Sum of Squares** | **df** | **Mean Square** | **Statistical inference** |
|---|---|---|---|---|---|---|---|
| Between Groups | | | | 130.401 | 2 | 65.201 | F=.729<br>.485>0.05<br>Not Significant |
| *20 to 39yrs* | 9 | 38.44 | 6.984 | | | | |
| *40 to* | 62 | 42.52 | 9.512 | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| *59yrs* | | | | | | | |
| *60yrs & above* | 27 | 41.93 | 9.969 | | | | |
| Within Groups | | | | 8493.558 | 95 | 89.406 | |

42.52 % of the study group belongs to age group between 40 and 59 years, which is not significant, in this study.

**Correlation between coping with age**




## TABLE.11 CORRELATION BETWEEN COPINGS WITH GENDER

| Coping | N | Mean | Std. Deviation | Statistical inference |
|---|---|---|---|---|
| **1. Problem Solving** | | | | |
| *Male* | 63 | 4.40 | 1.939 | T=-.699 Df=96<br>.486>0.05<br>Not Significant |
| *Female* | 35 | 4.69 | 1.997 | |
| **2. Positive distraction** | | | | |
| *Male* | 63 | 3.89 | 1.893 | T=-.264 Df=96<br>.792 >0.05 |
| *Female* | 35 | 4.00 | 2.169 | |

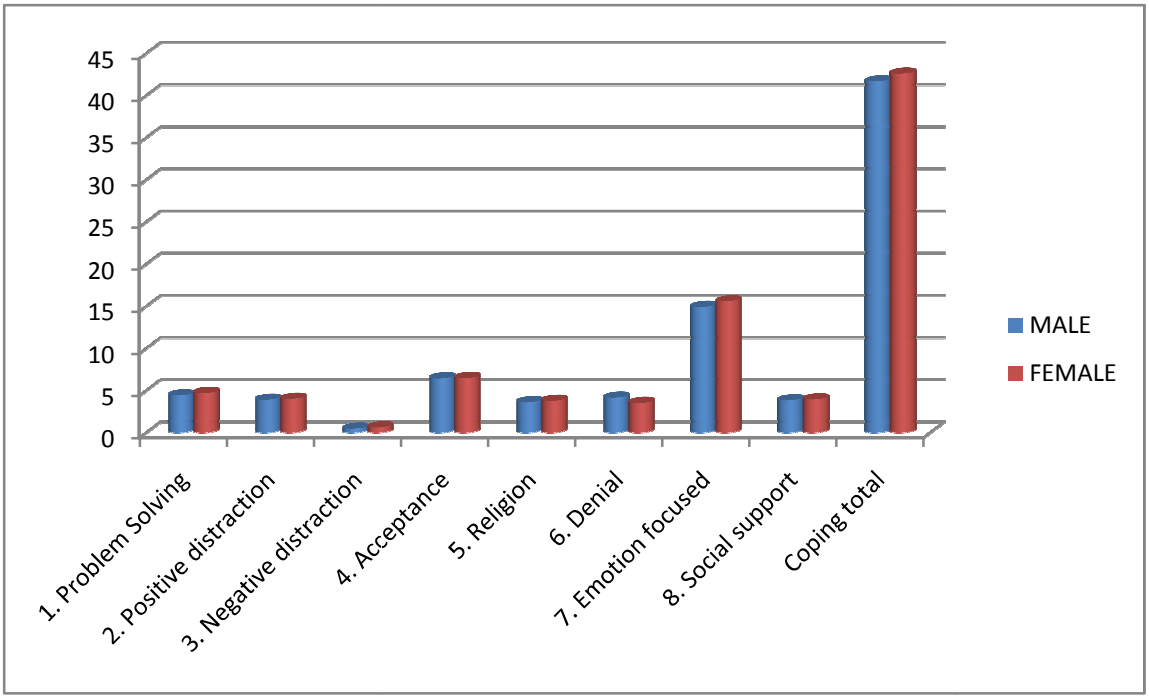
| | | | | |
|---|---|---|---|---|
| | | | | Not Significant |
| **3. Negative distraction** | | | | |
| *Male* | 63 | .46 | .668 | T=-1.155 Df=96<br>.251>0.05<br>Not Significant |
| *Female* | 35 | .63 | .731 | |
| **4. Acceptance** | | | | |
| *Male* | 63 | 6.43 | 1.583 | T=-.091Df=96<br>.928>0.05<br>Not Significant |
| *Female* | 35 | 6.46 | 1.314 | |
| **5. Religion** | | | | |
| *Male* | 63 | 3.60 | 2.174 | T=-.364Df=96<br>.717>0.05<br>Not Significant |
| *Female* | 35 | 3.77 | 2.224 | |
| **6. Denial** | | | | |
| *Male* | 63 | 4.14 | 2.055 | T=1.490Df=96<br>.140>0.05 Not Significant |
| *Female* | 35 | 3.51 | 1.900 | |

| | | | | |
|---|---|---|---|---|
| **7. Emotion focused** | | | | |
| *Male* | 63 | 14.90 | 4.734 | T=-.639Df=96<br>.525 >0.05<br>Not Significant |
| *Female* | 35 | 15.57 | 5.326 | |
| **8. Social support** | | | | |
| *Male* | 63 | 3.83 | 1.671 | T=-.350 Df=96<br>.727>0.05<br>Not Significant |
| *Female* | 35 | 3.94 | 1.434 | |
| **Coping total** | | | | |

| | | | | |
|---|---|---|---|---|
| *Male* | 63 | 41.65 | 8.972 | T=-.461 Df=96<br>.646>0.05<br>Not Significant |
| *Female* | 35 | 42.57 | 10.311 | |

Above table shows the correlation among coping with gender. It reveals female predominance and more towards emotionally focused, coping strategy. But it is not significant statistically.

## COPING AND GENDER




## TABLE.12 CORRELATION BETWEEN COPING WITH CLINICAL VARIABLES

| | N | Mean | S.D | Statistical inference |
|---|---|---|---|---|
| ***1.problem solving*** | | | | |
| *Pre-dialysis* | 48 | 4.42 | 1.686 | F=1.441<br>.242>0.05 |
| *Dialysis* | 11 | 3.73 | 2.054 | Not Significant |

| | | | | |
|---|---|---|---|---|
| *Post-Dialysis* | 39 | 4.82 | 2.199 | |
| **2. Positive distraction** | | | | |
| *Pre-dialysis* | 48 | 4.04 | 1.946 | F=.283<br>.754>0.05<br>Not Significant |
| *Dialysis* | 11 | 3.55 | 1.753 | |
| *Post-Dialysis* | 39 | 3.90 | 2.125 | |
| **3. Negative distraction** | | | | |
| *Pre-dialysis* | 48 | .56 | .741 | F=.368<br>.693>0.05<br>Not Significant |
| *Dialysis* | 11 | .36 | .674 | |
| *Post-Dialysis* | 39 | .51 | .644 | |

| | | | | |
|---|---|---|---|---|
| **4. Acceptance** | | | | |
| *Pre-dialysis* | 48 | 6.44 | 1.556 | F=1.644 |
| *Dialysis* | 11 | 5.73 | 1.348 | .199>0.05 |
| *Post-Dialysis* | 39 | 6.64 | 1.405 | Not Significant |
| **5. Religion** | | | | |
| *Pre-dialysis* | 48 | 3.63 | 2.049 | F=2.755 |
| *Dialysis* | 11 | 2.36 | 1.629 | .069>0.05 |
| *Post-Dialysis* | 39 | 4.08 | 2.366 | Not Significant |
| **6. Denial** | | | | |
| *Pre-dialysis* | 48 | 4.08 | 2.082 | F=.620 |
| *Dialysis* | 11 | 4.18 | 2.523 | .540>0.05 |
| *Post-Dialysis* | 39 | 3.64 | 1.784 | Not Significant |
| **7. Emotion focused** | | | | |
| *Pre-dialysis* | 48 | 15.54 | 5.116 | F=.399 |
| *Dialysis* | 11 | 14.18 | 3.573 | .672>0.05 |
| *Post-Dialysis* | 39 | 14.92 | 5.096 | Not Significant |
| **8.Social support** | | | | |
| *Pre-dialysis* | 48 | 3.79 | 1.688 | F=.607 |
| *Dialysis* | 11 | 4.36 | 1.206 | .547>0.05 |
| *Post-Dialysis* | 39 | 3.82 | 1.554 | Not Significant |

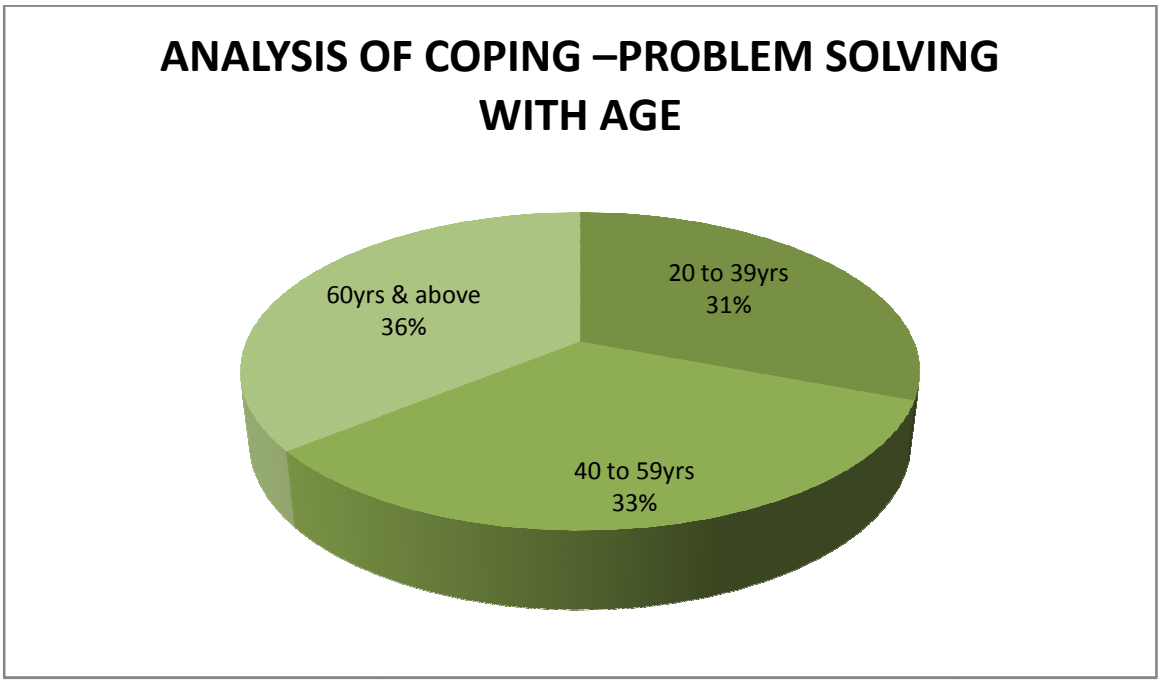
| Coping total | | | | |
|---|---|---|---|---|
| *Pre-dialysis* | 48 | 42.50 | 9.098 | F=.867 |
| *Dialysis* | 11 | 38.45 | 5.126 | .424>0.05 |
| *Post-Dialysis* | 39 | 42.33 | 10.658 | Not Significant |

Coping is more among pre-dialysis CKD patients, with majority contributing to emotion focused in particular. But it is not statistically significant.

## TABLE.15 ANALYSIS OF COPING –PROBLEM SOLVING WITH AGE

| | N | Mean | Std. Deviation | Sum of Squares | df | Mean Square | Statistical inference |
|---|---|---|---|---|---|---|---|
| **1. Problem Solving** | | | | | | | |
| Between Groups | | | | 3.703 | 2 | 1.851 | F=.479<br>.621>0.05<br>Not Significant |
| *20 to 39yrs* | 9 | 4.11 | 1.965 | | | | |
| *40 to 59yrs* | 62 | 4.44 | 2.101 | | | | |
| *60yrs & above* | 27 | 4.78 | 1.601 | | | | |

No significance , was found when comparing problem solving with age.




## TABLE.16 ANALYSIS OF COPING –POSITIVE DISTRACTION

| | N | Mean | Std. Deviation | Sum of Squares | df | Mean Square | Statistical inference |
|---|---|---|---|---|---|---|---|
| **2. Positive distraction** | | | | | | | |
| Between Groups | | | | 5.624 | 2 | 2.812 | F=.709 .495>0.05 Not Significant |
| *20 to 39yrs* | 9 | 3.33 | 1.871 | | | | |
| *40 to 59yrs* | 62 | 3.89 | 2.009 | | | | |
| *60yrs & above* | 27 | 4.22 | 1.987 | | | | |
| Within Groups | | | | 376.876 | 95 | 3.967 | |

No significance was found when comparing positive distraction with age.

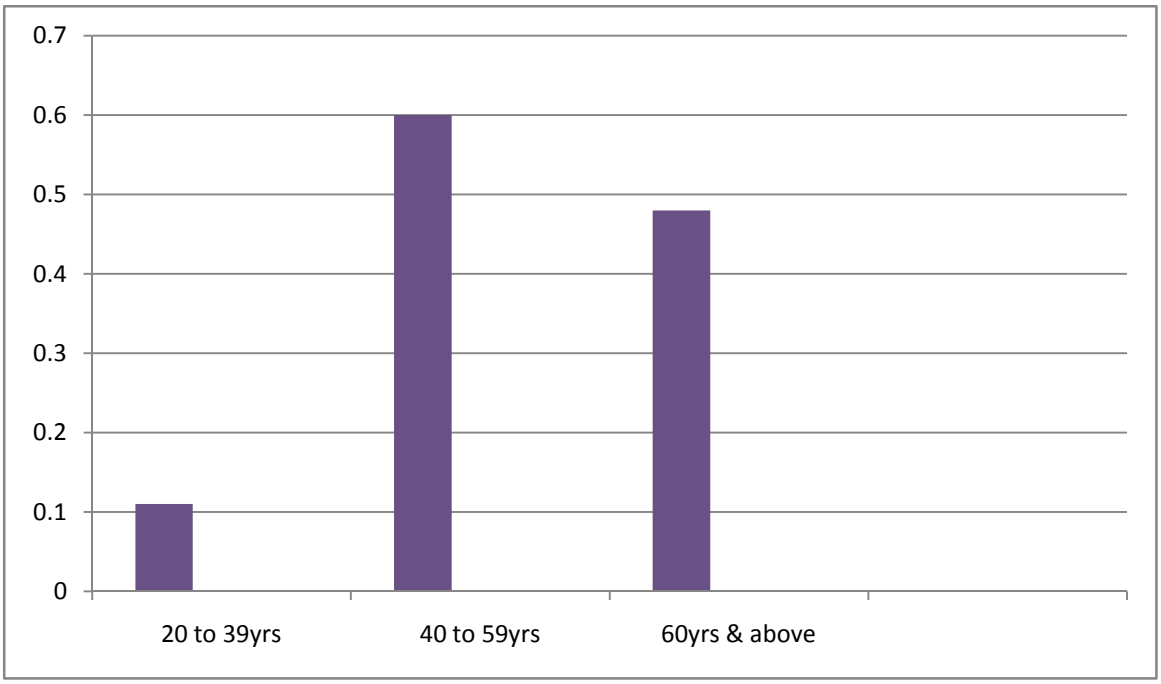
**TABLE.17 ANALYSIS OF COPING –NEGATIVE DISTRACTION WITH AGE**

| | N | Mean | Std. | Sum of | df | Mean | Statistical |
|---|---|---|---|---|---|---|---|

| | | | Deviation | Squares | | Square | inference |
|---|---|---|---|---|---|---|---|
| **3. Negative distraction** | | | | | | | |
| Between Groups | | | | 1.910 | 2 | .955 | F=2.037 |
| *20 to 39yrs* | 9 | .11 | .333 | | | | .136>0.05 |
| *40 to 59yrs* | 62 | .60 | .712 | | | | Not Significant |
| *60yrs & above* | 27 | .48 | .700 | | | | |
| Within Groups | | | | 44.549 | 95 | .469 | |

No significance was found when comparing Negative distraction with age

## ANALYSIS OF COPING –NEGATIVE DISTRACTION




## TABLE.18 ANALYSIS OF COPING –ACCEPTANCE WITH AGE

| | N | Mean | Std. | Sum of | df | Mean | Statistical |
|---|---|---|---|---|---|---|---|

| | | | Deviation | Squares | | Square | inference |
|---|---|---|---|---|---|---|---|
| Between Groups | | | | 3.706 | 2 | 1.853 | |
| *20 to 39yrs* | 9 | 7.00 | 1.581 | | | | F=.836 |
| *40 to 59yrs* | 62 | 6.44 | 1.374 | | | | .436>0.05 |
| *60yrs & above* | 27 | 6.26 | 1.701 | | | | Not Significant |
| Within Groups | | | | 210.427 | 95 | 2.215 | |

Acceptance occupies majority of coping among emotionally focused coping, but it is not statistically significant.

**ANALYSIS OF COPING –ACCEPTANCE WITH AGE**

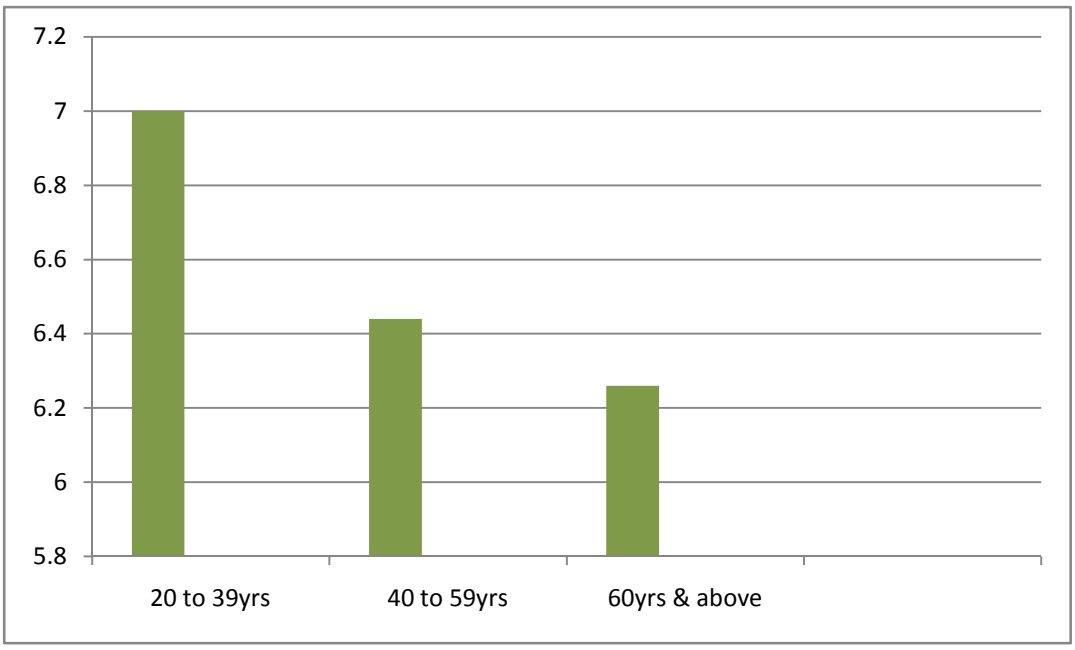



**TABLE.19 ANALYSIS OF COPING –RELIGION WITH AGE**

| | N | Mean | Std. | Sum of | df | Mean | Statistical |
|---|---|---|---|---|---|---|---|

| | | | Deviation | Squares | | Square | inference |
|---|---|---|---|---|---|---|---|
| Between Groups | | | | 42.612 | 2 | 21.306 | |
| *20 to 39yrs* | 9 | 2.56 | 1.944 | | | | F=4.828 |
| *40 to 59yrs* | 62 | 4.16 | 2.167 | | | | .010<0.05 |
| *60yrs & above* | 27 | 2.89 | 1.987 | | | | Significant |
| Within Groups | | | | 419.276 | 95 | 4.413 | |

By analyzing the religion with age groups of CKD patients, statistical inference was found to be less than 0.05 which is statistically significant.

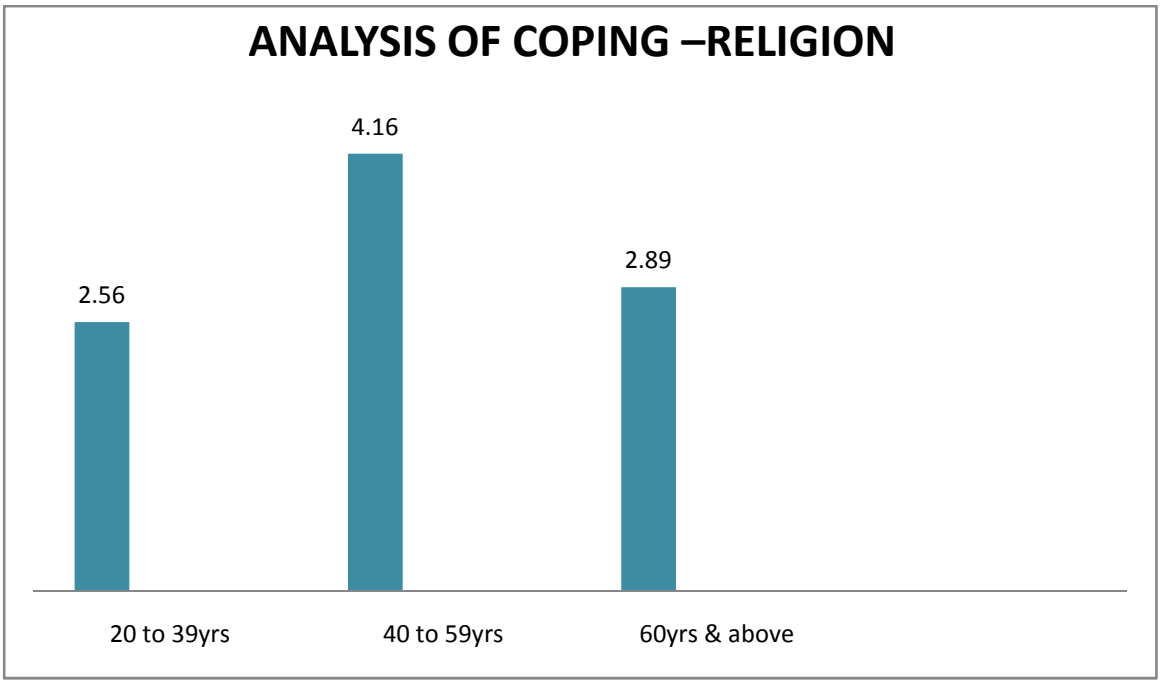



**TABLE.20 ANALYSIS OF COPING –DENIAL WITH AGE**

| | N | Mean | Std. | Sum of | df | Mean | Statistical |
|---|---|---|---|---|---|---|---|

| | | | Deviation | Squares | | Square | inference |
|---|---|---|---|---|---|---|---|
| Between Groups | | | | 4.520 | 2 | 2.260 | F=.552 .578>0.05 Not Significant |
| *20 to 39yrs* | 9 | 3.33 | 2.000 | | | | |
| *40 to 59yrs* | 62 | 3.90 | 1.808 | | | | |
| *60yrs & above* | 27 | 4.15 | 2.461 | | | | |
| Within Groups | | | | 388.827 | 95 | 4.093 | |

By analyzing the denial with age groups of CKD patients statistical inference was found to be more than 0.05 which is not statistically significant

**ANALYSIS OF COPING –DENIAL**

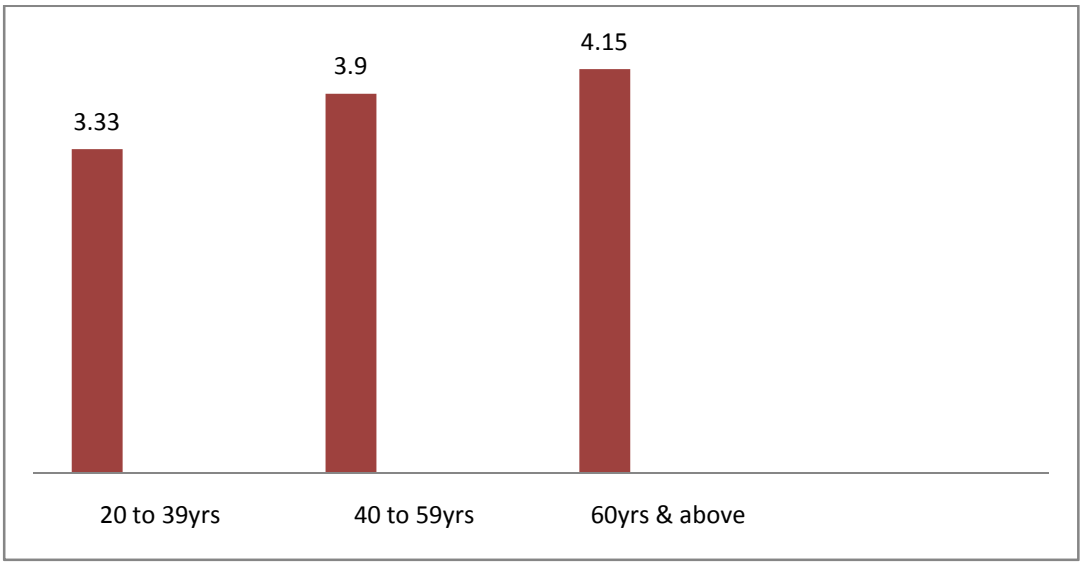



**TABLE.21 ANALYSIS OF COPING –EMOTION FOCUSED WITH AGE**

| | N | Mean | Std. Deviation | Sum of Squares | df | Mean Square | Statistical inference |
|---|---|---|---|---|---|---|---|
| Between Groups | | | | 16.557 | 2 | 8.279 | F=.335 .716>0.05 Not Significant |
| *20 to 39yrs* | 9 | 13.89 | 5.487 | | | | |
| *40 to 59yrs* | 62 | 15.34 | 4.753 | | | | |
| *60yrs & above* | 27 | 15.11 | 5.294 | | | | |
| Within Groups | | | | 2347.443 | 95 | 24.710 | |

Emotion focused coping constitutes majority of CKD patients with mean value 15.34 , but it is not statistically significant in this study

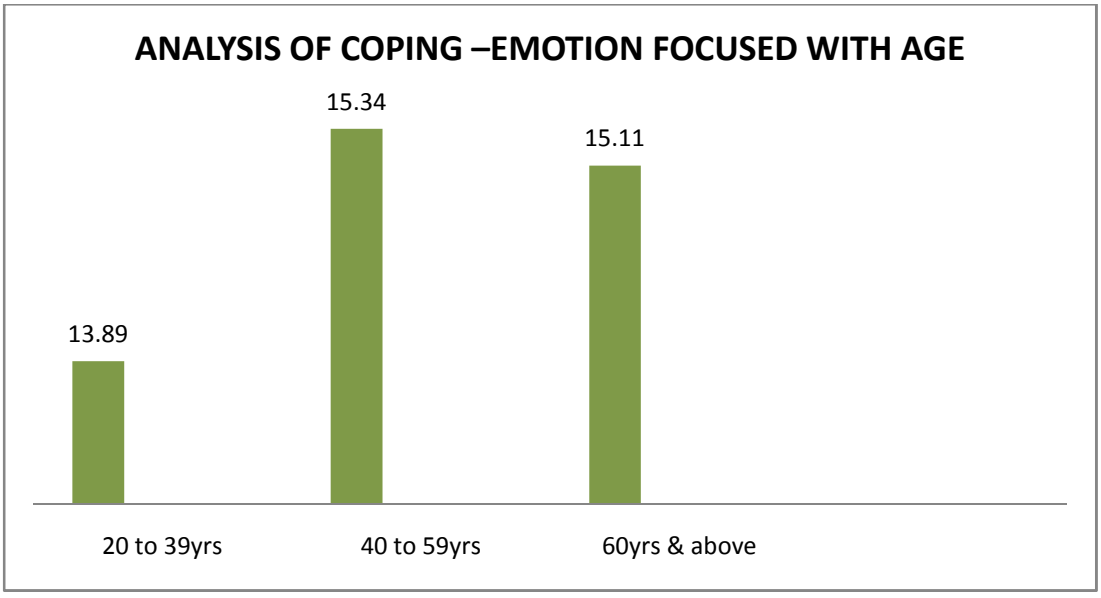



**TABLE.22 ANALYSIS OF COPING –SOCIAL SUPPORT WITH AGE**

| | N | Mean | Std. | Sum of | df | Mean | Statistical |
|---|---|---|---|---|---|---|---|

| | | | Deviation | Squares | | Square | inference |
|---|---|---|---|---|---|---|---|
| Between Groups | | | | 2.053 | 2 | 1.026 | |
| *20 to 39yrs* | 9 | 4.11 | 1.537 | | | | |
| *40 to 59yrs* | 62 | 3.76 | 1.666 | | | | F=.404 |
| *60yrs & above* | 27 | 4.04 | 1.427 | | | | 669>0.05 |
| Within Groups | | | | 241.223 | 95 | 2.539 | Not Significant |

Social support coping constitutes majority of CKD patients with mean value 4.11 but it is not statistically significant in this study.

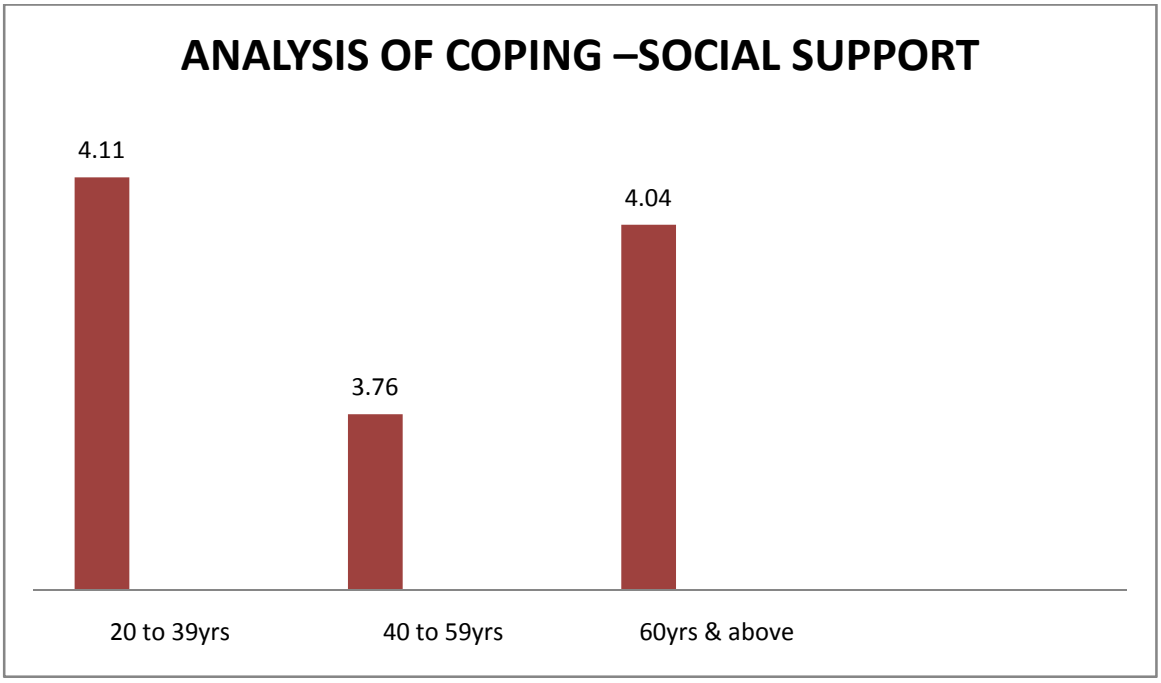



**TABLE.23 COPING TOTAL WITH AGE**

| | N | Mean | Std. Deviation | Sum of Squares | df | Mean Square | Statistical inference |
|---|---|---|---|---|---|---|---|

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Between Groups | | | | 130.401 | 2 | 65.201 | F=.729<br>.485>0.05<br>Not Significant |
| *20 to 39yrs* | 9 | 38.44 | 6.984 | | | | |
| *40 to 59yrs* | 62 | 42.52 | 9.512 | | | | |
| *60yrs & above* | 27 | 41.93 | 9.969 | | | | |
| Within Groups | | | | 8493.558 | 95 | 89.406 | |

Coping is more in 40 to 59 years age groups accounting to 42 .52% but it is not statistically, significant.

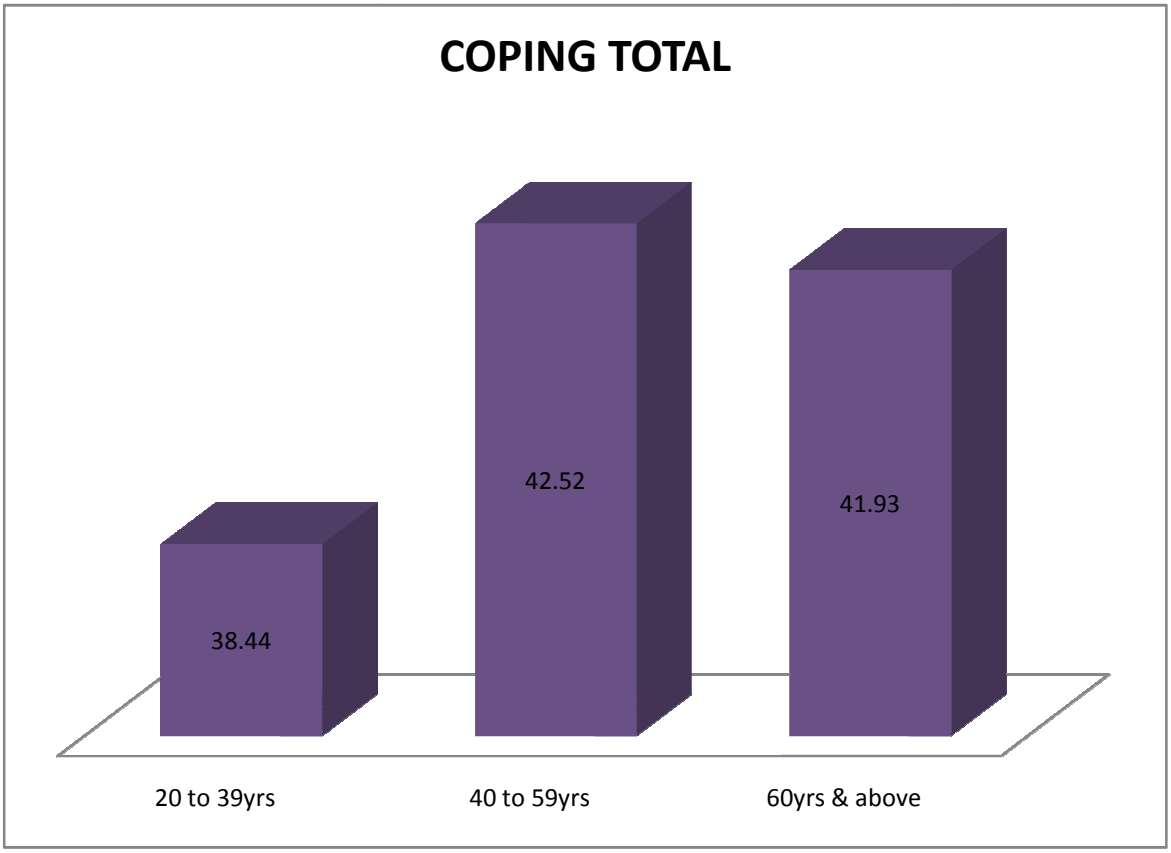


**TABLE.24 COPING - PROBLEM SOLVING WITH CLINICAL VARIABLES**

| | N | Mean | Std. Deviation | Sum of Squares | df | Mean Square | Statistical inference |
|---|---|---|---|---|---|---|---|
| Between Groups | | | | 10.908 | 2 | 5.454 | F=1.441 .242>0.05 Not Significant |
| *Prediaysis* | 48 | 4.42 | 1.686 | | | | |
| *Dialysis* | 11 | 3.73 | 2.054 | | | | |
| *Post-Dialysis* | 39 | 4.82 | 2.199 | | | | |
| Within Groups | | | | 359.592 | 95 | 3.785 | |

By comparing problem solving of CKD patients with clinical variables, the analysis shows that it is not statistically significant.

**TABLE.25 COPING - POSITIVE DISTRACTION WITH CLINICAL VARIABLES**

| | N | Mean | Std. Deviation | Sum of Squares | df | Mean Square | Statistical inference |
|---|---|---|---|---|---|---|---|
| Between Groups | | | | 2.266 | 2 | 1.133 | |
| *Pre-dialysis* | 48 | 4.04 | 1.946 | | | | F=.283 |
| *Dialysis* | 11 | 3.55 | 1.753 | | | | .754>0.05 |
| *Post-Dialysis* | 39 | 3.90 | 2.125 | | | | Not Significant |
| Within Groups | | | | 380.234 | 95 | 4.002 | |

By comparing positive distraction of CKD patient, the patient on pre-dialysis scored high with mean 4.94, but it is not statistically significant.

**TABLE.26 COPING - NEGATIVE DISTRACTION WITH CLINICAL VARIABLES**

| | N | Mean | Std. Deviation | Sum of Squares | df | Mean Square | Statistical inference |
|---|---|---|---|---|---|---|---|
| Between Groups | | | | .358 | 2 | .179 | F=.368 .693>0.05 Not Significant |
| *Pre-dialysis* | 48 | .56 | .741 | | | | |
| *Dialysis* | 11 | .36 | .674 | | | | |
| *Post-Dialysis* | 39 | .51 | .644 | | | | |
| Within Groups | | | | 46.102 | 95 | .485 | |

Negative distraction is the least adopted coping among CKD patients in this study group which is 0.51,and it is not significant.

## TABLE.27 COPING - ACCEPTANCE WITH CLINICAL VARIABLES

| | N | Mean | Std. Deviation | Sum of Squares | df | Mean Square | Statistical inference |
|---|---|---|---|---|---|---|---|
| Between Groups | | | | 7.164 | 2 | 3.582 | F=1.644 |
| *Pre-dialysis* | 48 | 6.44 | 1.556 | | | | .0.042>0.05 |
| *Dialysis* | 11 | 5.73 | 1.348 | | | | Significant |
| *Post-Dialysis* | 39 | 6.64 | 1.405 | | | | |
| Within Groups | | | | 206.969 | 95 | 2.179 | |

Acceptance constitutes majority of coping among CKD patients in this study group which is 0.42 and it is significant statistically.

## TABLE.28 COPING - RELIGION WITH CLINICAL VARIABLES

| | N | Mean | Std. Deviation | Sum of Squares | df | Mean Square | Statistical inference |
|---|---|---|---|---|---|---|---|
| Between Groups | | | | 25.323 | 2 | 12.662 | F=2.755 |
| *Pre-dialysis* | 48 | 3.63 | 2.049 | | | | .069>0.05 |
| *Dialysis* | 11 | 2.36 | 1.629 | | | | Not Significant |
| *Post-Dialysis* | 39 | 4.08 | 2.366 | | | | |
| Within Groups | | | | 436.565 | 95 | 4.595 | |

By comparing religion with clinical variables of CKD patients , it is not significant

**TABLE.29 COPING - DENIAL WITH CLINICAL VARIABLES**

| | N | Mean | Std. Deviation | Sum of Squares | df | Mean Square | Statistical inference |
|---|---|---|---|---|---|---|---|
| Between Groups | | | | 5.070 | 2 | 2.535 | F=.620 .540>0.05 Not Significant |
| *Pre-dialysis* | 48 | 4.08 | 2.082 | | | | |
| *Dialysis* | 11 | 4.18 | 2.523 | | | | |
| *Post-Dialysis* | 39 | 3.64 | 1.784 | | | | |
| Within Groups | | | | 388.277 | 95 | 4.087 | |

By comparing denial of CKD patients with clinical variables ,the analysis shows that it is not significant.

**TABLE.30 COPING – EMOTION FOCUSED WITH CLINICAL VARIABLES**

| | N | Mean | Std. | Sum of | df | Mean | Statistical |
|---|---|---|---|---|---|---|---|

| | | | Deviation | Squares | | Square | inference |
|---|---|---|---|---|---|---|---|
| Between Groups | | | | 19.678 | 2 | 9.839 | F=.399 |
| *Pre-dialysis* | 48 | 15.54 | 5.116 | | | | .672>0.05 |
| *Dialysis* | 11 | 14.18 | 3.573 | | | | Not Significant |
| *Post-Dialysis* | 39 | 14.92 | 5.096 | | | | |
| Within Groups | | | | 2344.322 | 95 | 24.677 | |

By comparing emotion focused of CKD patients with clinical variables, the analysis shows that it is not significant

**TABLE.31 COPING – SOCIAL SUPPORT WITH CLINICAL VARIABLES**

| | N | Mean | Std. | Sum of | df | Mean | Statistical |
|---|---|---|---|---|---|---|---|

| | | | Deviation | Squares | | Square | inference |
|---|---|---|---|---|---|---|---|
| Between Groups | | | | 3.070 | 2 | 1.535 | F=.607 |
| *Pre-dialysis* | 48 | 3.79 | 1.688 | | | | .547>0.05 |
| *Dialysis* | 11 | 4.36 | 1.206 | | | | Not Significant |
| *Post-Dialysis* | 39 | 3.82 | 1.554 | | | | |
| Within Groups | | | | 240.206 | 95 | 2.528 | |

By comparing social support of CKD patients with clinical variables,the analysis shows that it is not significant

**TABLE.32 COPING – COPING TOTAL WITH CLINICAL VARIABLES**

| | N | Mean | Std. | Sum of | df | Mean | Statistical |
|---|---|---|---|---|---|---|---|

| | | | Deviation | Squares | | Square | inference |
|---|---|---|---|---|---|---|---|
| Between Groups | | | | 154.565 | 2 | 77.283 | |
| *Pre-dialysis* | 48 | 42.50 | 9.098 | | | | F=.867 |
| *Dialysis* | 11 | 38.45 | 5.126 | | | | .424>0.05 |
| *Post-Dialysis* | 39 | 42.33 | 10.658 | | | | Not Significant |
| Within Groups | | | | 8469.394 | 95 | 89.152 | |

By comparing coping total of CKD patients with clinical variables, the analysis shows that it is not significant

**TABLE.33 COPING – PROBLEM SOLVING WITH AGE GROUPS**

| | N | Mean | Std. | Sum of | df | Mean | Statistical |
|---|---|---|---|---|---|---|---|

| | | | Deviation | Squares | | Square | inference |
|---|---|---|---|---|---|---|---|
| Between Groups | | | | 12.979 | 2 | 6.490 | |
| *Below 1year* | 18 | 5.11 | 1.937 | | | | F=1.724 |
| *1 to 3years* | 27 | 4.70 | 1.958 | | | | .184>0.05 |
| *Above 3years* | 53 | 4.19 | 1.932 | | | | Not Significant |
| Within Groups | | | | 357.521 | 95 | 3.763 | |

By comparing problem solving of CKD patients with age group, the statistical inference shows that it is not significant.

**TABLE.34 COPING – POSITIVE DISTRACTION WITH AGE GROUPS**

| | N | Mean | Std. Deviation | Sum of Squares | df | Mean Square | Statistical inference |
|---|---|---|---|---|---|---|---|
| Between Groups | | | | 5.087 | 2 | 2.544 | F=.640 |
| *Below 1* | 18 | 3.83 | 2.282 | | | | .529>0.05 |
| *1 to 3* | 27 | 4.30 | 1.772 | | | | Not Significant |
| *Above 3* | 53 | 3.77 | 1.997 | | | | |
| Within Groups | | | | 377.413 | 95 | 3.973 | |

By comparing positive distraction of CKD patients the statistical inference shows that it is not significant

**TABLE.35 COPING – NEGATIVE DISTRACTION WITH CLINICAL VARIABLES**

| | N | Mean | Std. Deviation | Sum of Squares | df | Mean Square | Statistical inference |
|---|---|---|---|---|---|---|---|
| Between Groups | | | | 1.295 | 2 | .647 | F=1.362 |
| *Below 1* | 18 | .67 | .686 | | | | .261>0.05 |
| *1 to 3* | 27 | .63 | .742 | | | | Not Significant |
| *Above 3* | 53 | .42 | .663 | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Within Groups | | | | 45.164 | 95 | .475 | |

By comparing negative distraction of CKD patients the statistical inference shows that it is not significant

**TABLE.36 COPING – ACCEPTANCE WITH CLINICAL VARIABLES**

| | **N** | **Mean** | **Std. Deviation** | **Sum of Squares** | **df** | **Mean Square** | **Statistical inference** |
|---|---|---|---|---|---|---|---|
| Between Groups | | | | 3.995 | 2 | 1.997 | F=.903<br>.409>0.05<br>Not Significant |
| *Below 1* | 18 | 6.28 | 1.565 | | | | |
| *1 to 3* | 27 | 6.19 | 1.520 | | | | |
| *Above 3* | 53 | 6.62 | 1.444 | | | | |
| Within Groups | | | | 210.138 | 95 | 2.212 | |

By comparing acceptance of CKD patients of the statistical inference shows that it is not significant

**TABLE.37 COPING – RELIGION WITH CLINICAL VARIABLES**

| | N | Mean | Std. Deviation | Sum of Squares | df | Mean Square | Statistical inference |
|---|---|---|---|---|---|---|---|
| Between Groups | | | | 5.069 | 2 | 2.535 | F=.527<br>.592>0.05<br>Not Significant |
| *Below 1* | 18 | 4.06 | 2.461 | | | | |
| *1 to 3* | 27 | 3.78 | 2.044 | | | | |
| *Above 3* | 53 | 3.47 | 2.172 | | | | |
| Within Groups | | | | 456.819 | 95 | 4.809 | |

By comparing religion of CKD patients the statistical inference shows that it is not significant

**TABLE.38 COPING – DENIAL WITH CLINICAL VARIABLES**

| | N | Mean | Std. | Sum of | df | Mean | Statistical |
|---|---|---|---|---|---|---|---|

| | | | Deviation | Squares | | Square | inference |
|---|---|---|---|---|---|---|---|
| Between Groups | | | | 7.638 | 2 | 3.819 | F=.941 |
| *Below 1* | 18 | 3.78 | 2.016 | | | | .394>0.05 |
| *1 to 3* | 27 | 4.37 | 2.306 | | | | Not Significant |
| *Above 3* | 53 | 3.74 | 1.852 | | | | |
| Within Groups | | | | 385.709 | 95 | 4.060 | |

By comparing denial of CKD patients the statistical inference shows that it is not significant

**TABLE.39 COPING – EMOTION FOCUSED WITH CLINICAL VARIABLES**

| | N | Mean | Std. | Sum of | df | Mean | Statistical |
|---|---|---|---|---|---|---|---|

| | | | Deviation | Squares | | Square | inference |
|---|---|---|---|---|---|---|---|
| Between Groups | | | | 51.135 | 2 | 25.568 | |
| *Below 1* | 18 | 14.17 | 5.393 | | | | F=1.050 |
| *1 to 3* | 27 | 16.22 | 4.815 | | | | .354>0.05 |
| *Above 3* | 53 | 14.92 | 4.835 | | | | Not Significant |
| Within Groups | | | | 2312.865 | 95 | 24.346 | |

By comparing emotion focused coping of CKD patients, the statistical inference shows that it is not significant.

**TABLE.40 COPING – SOCIAL SUPPORT WITH CLINICAL VARIABLES**

| | N | Mean | Std. | Sum of | df | Mean | Statistical |
|---|---|---|---|---|---|---|---|

| | | | Deviation | Squares | | Square | inference |
|---|---|---|---|---|---|---|---|
| Between Groups | | | | 2.887 | 2 | 1.443 | |
| *Below 1* | 18 | 3.78 | 1.833 | | | | F=.570 |
| *1 to 3* | 27 | 3.63 | 1.573 | | | | .567>0.05 |
| *Above 3* | 53 | 4.02 | 1.513 | | | | Not Significant |
| Within Groups | | | | 240.389 | 95 | 2.530 | |

By comparing social support of CKD patients the statistical inference shows that it is not significant

**TABLE.41 COPING TOTAL WITH CLINICAL VARIABLES**

| | N | Mean | Std. Deviation | Sum of Squares | df | Mean Square | Statistical inference |
|---|---|---|---|---|---|---|---|

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Between Groups | | | | 129.093 | 2 | 64.546 | |
| *Below 1* | 18 | 41.67 | 9.756 | | | | F=.722 |
| *1 to 3* | 27 | 43.81 | 7.751 | | | | .489>0.05 |
| *Above 3* | 53 | 41.15 | 10.110 | | | | Not Significant |
| Within Groups | | | | 8494.867 | 95 | 89.420 | |

By comparing coping total, of CKD patients the statistical inference shows that it is not significant irrespective of the duration of illness.

**TABLE.42** STATISTICAL **ANALYSIS OF QUALITY OF LIFE**

| | QOL | **N** | **Min.** | **Max.** | **Mean** | **S.D** |
|---|---|---|---|---|---|---|
| PHYSICAL COMPONENT | Health Status | 98 | 1 | 3 | 1.82 | .563 |
| | limitation of activities | 98 | 1 | 5 | 2.24 | 1.252 |
| | Extra effort | 98 | 1 | 2 | 1.26 | .438 |
| | Pain grading | 98 | 1 | 5 | 3.03 | 1.171 |
| | Pain interfering with work | 98 | 1 | 4 | 2.57 | .862 |
| | Interfering with social activity | 98 | 1 | 5 | 3.18 | 1.078 |
| | Cut down time | 98 | 1 | 2 | 1.35 | .478 |
| | Accomplished less | 98 | 1 | 2 | 1.43 | .497 |

| | | | | | | |
|---|---|---|---|---|---|---|
| MENTAL COMPONENT | Not doing work | 98 | 1 | 2 | 1.35 | .478 |
| | Full of pep | 98 | 2 | 6 | 5.06 | 1.383 |
| | Nervous | 98 | 2 | 6 | 4.83 | 1.193 |
| | nothing could cheer up | 98 | 3 | 6 | 3.96 | 1.015 |
| | Peaceful | 98 | 2 | 6 | 3.66 | 1.421 |
| | feel tied | 98 | 2 | 5 | 3.41 | .872 |
| | Sick easier than others | 98 | 2 | 5 | 2.57 | 1.035 |
| | Healthy as anybody | 98 | 1 | 5 | 3.59 | 1.129 |
| | Expect health | 98 | 1 | 4 | 2.06 | .961 |
| | Health is excellent | 98 | 3 | 5 | 4.65 | .628 |

The above table shows higher scores in mental component compared to physical component. Higher the score better the quality of life.

**TABLE.44 QOL – HEALTH STATUS WITH CLINICAL VARIABLES**

**AGE GROUPS AND TIME SINCE DIAGNOSIS**

| | N | Mean | Std. Deviation | Sum of Squares | df | Mean Square | Statistical inference |
|---|---|---|---|---|---|---|---|
| Between Groups | | | | .757 | 2 | .378 | F=1.200 |
| *20 to 39yrs* | 9 | 1.56 | .527 | | | | .306>0.05 |
| *40 to 59yrs* | 62 | 1.82 | .559 | | | | Not Significant |
| *60yrs & above* | 27 | 1.89 | .577 | | | | |
| Within Groups | | | | 29.937 | 95 | .315 | |
| Between Groups | | | | 1.251 | 2 | .625 | F=2.018 |
| *Pre-dialysis* | 48 | 1.75 | .526 | | | | .139>0.05 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| *Dialysis* | 11 | 1.64 | .674 | | | | Not Significant |
| *Post-Dialysis* | 39 | 1.95 | .560 | | | | |
| Within Groups | | | | 29.443 | 95 | .310 | |
| Between Groups | | | | .951 | 2 | .476 | F=1.519 |
| *Below 1* | 18 | 2.00 | .485 | | | | .224>0.05 |
| *1 to 3* | 27 | 1.70 | .609 | | | | Not Significant |
| *Above 3* | 53 | 1.81 | .557 | | | | |
| Within Groups | | | | 29.743 | 95 | .313 | |

The above table shows correlation between SF-36 Health status with, age groups, clinical variables and time since diagnosis of illness. No significance was found.

**TABLE.45 QOL – LIMITATION OF ACTIVITIES WITH CLINICAL VARIABLES ,AGE GROUPS AND TIME SINCE DIAGNOSIS**

| | **N** | **Mean** | **Std. Deviation** | **Sum of Squares** | **Df** | **Mean Square** | **Statistical inference** |
|---|---|---|---|---|---|---|---|
| Between Groups | | | | 2.352 | 2 | 1.176 | F=.746 |
| *20 to 39yrs* | 9 | 1.78 | .667 | | | | .477>0.05 |
| *40 to 59yrs* | 62 | 2.32 | 1.238 | | | | Not Significant |
| *60yrs & above* | 27 | 2.22 | 1.423 | | | | |
| Within Groups | | | | 149.771 | 95 | 1.577 | |
| Between Groups | | | | 6.218 | 2 | 3.109 | F=2.024 |
| *Pre-dialysis* | 48 | 2.15 | 1.220 | | | | .138>0.05 |
| *Dialysis* | 11 | 1.73 | .786 | | | | Not Significant |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| *Post-Dialysis* | 39 | 2.51 | 1.355 | | | | |
| Within Groups | | | | 145.905 | 95 | 1.536 | |
| Between Groups | | | | 13.054 | 2 | 6.527 | F=4.459 |
| *Below 1yrs* | 18 | 2.94 | 1.514 | | | | .014<0.05 |
| *1 to 3yrs* | 27 | 1.85 | .662 | | | | Significant |
| *Above 3yrs* | 53 | 2.21 | 1.306 | | | | |
| Within Groups | | | | 139.069 | 95 | 1.464 | |

The above table shows correlation between quality of life with, age groups, clinical variables and time since diagnosis of illness. Limitation of activity is significant statistically with value less than 0.005, in more than than three years of illness.

**TABLE.46 QOL – PAIN INTERFERING WITH WORK WITH CLINICAL VARIABLES**

| | **N** | **Mean** | **Std. Deviation** | **Sum of Squares** | **df** | **Mean Square** | **Statistical inference** |
|---|---|---|---|---|---|---|---|
| Between Groups | | | | 2.928 | 2 | 1.464 | |
| *20 to 39yrs* | 9 | 2.78 | .441 | | | | F=2.013 |
| *40 to 59yrs* | 62 | 2.66 | .886 | | | | .139>0.05 |
| *60yrs & above* | 27 | 2.30 | .869 | | | | Not Significant |
| Within Groups | | | | 69.072 | 95 | .727 | |
| Between Groups | | | | .865 | 2 | .432 | F=.577 |
| *Pre-dialysis* | 48 | 2.48 | .799 | | | | .563>0.05 |
| *Dialysis* | 11 | 2.73 | .647 | | | | Not Significant |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| *Post-Dialysis* | 39 | 2.64 | .986 | | | | |
| Within Groups | | | | 71.135 | 95 | .749 | |
| Between Groups | | | | 1.293 | 2 | .646 | F=.868 |
| *Below 1* | 18 | 2.33 | 1.085 | | | | .423>0.05 |
| *1 to 3* | 27 | 2.59 | .747 | | | | Not Significant |
| *Above 3* | 53 | 2.64 | .834 | | | | |

The above table shows correlation between SF-36 pain- with, age groups, clinical variables and time since diagnosis of illness. No significance was found

**TABLE.47 QOL – INTERFERING WITH SOCIAL ACTIVITY WITH CLINICAL VARIABLES**

| | **N** | **Mean** | **Std. Deviation** | **Sum of Squares** | **df** | **Mean Square** | **Statistical inference** |
|---|---|---|---|---|---|---|---|
| Between Groups | | | | 3.466 | 2 | 1.733 | |
| ***20 to 39yrs*** | 9 | 3.44 | 1.014 | | | | F=1.507 |
| ***40 to 59yrs*** | 62 | 3.27 | 1.089 | | | | .227>0.05 |
| ***60yrs & above*** | 27 | 2.89 | 1.050 | | | | Not Significant |
| Within Groups | | | | 109.228 | 95 | 1.150 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Between Groups | | | | .195 | 2 | .098 | |
| ***Pre-dialysis*** | 48 | 3.17 | .953 | | | | F=.082 |
| ***Dialysis*** | 11 | 3.09 | .944 | | | | .921>0.05 |
| ***Post-Dialysis*** | 39 | 3.23 | 1.266 | | | | Not Significant |
| Within Groups | | | | 112.499 | 95 | 1.184 | |
| Between Groups | | | | .069 | 2 | .035 | F=.029 |
| ***Below 1yr*** | 18 | 3.17 | 1.098 | | | | .971>0.05 |
| ***1 to 3yrs*** | 27 | 3.15 | .949 | | | | Not Significant |
| ***Above 3yrs*** | 53 | 3.21 | 1.150 | | | | |
| Within Groups | | | | 112.624 | 95 | 1.186 | |

The above table shows correlation between SF-36 Pain interfering with social activity ,with, age groups, clinical variables and time since diagnosis of illness. No significance was found

**TABLE.43 STATISTICAL ANALYSIS OF CKD PATIENTS BASED ON PSYCHOLOGICAL DISTRESS**

| | **N** | **Min.** | **Max.** | **Mean** | **S.D** |
|---|---|---|---|---|---|
| Anxiety score | 98 | 1.00 | 1.60 | 1.0745 | .13721 |
| Depressive score | 98 | .60 | 1.20 | .7596 | .18792 |

On analysis, the mean score is higher for anxiety compared to depression. But both have positive association.

## DISCUSSION:

A cross-sectional descriptive study was carried out on 98 CKD patients of CKD STAGE 4 and 5, in Nephrology department, Thanjavur medical college hospital, Thanjavur.

## SOCIO-DEMOGRAPHIC PROFILE OF CKD PATIENTS:

An analysis of the socio-demographic details of the CKD patient's reveals that majority of patient belong to 40 to 59 years. The average duration of illnesses is more than 3 years. There were more males than female patients in this study sample. This is concordance with study done by Anna Kaltsouda, 2011 et.al

Majority of the patients had studied up to middle school (42.9%). Over two third of the participant samples were unemployed (41.8%). Majority of those who were employed, were working as manual laborers or semiskilled workers .About (80.6%) of the study sample were married.

Duration of illness, more than 3 years constitute (54.1%) which reveals disease is chronic in nature . Diabetic constitute (52%) and non diabetic accounts for (48%).

The coping strategies used by the patients in handling the stress of chronic disease were assessed in order to understand the impact of perceived burden and psychological distress associated with the disease.

In this study, the group as a whole reported greater use of emotion focused coping strategies particularly, acceptance, then followed by denial and religion (Table 10).This findings are similar to the study conducted by Carine poppe et al 2012,which revealed acceptance as a significant coping adopted by the CKD patients. In this current study also acceptance becomes significant statistically , when correlated with clinical variable.

Results has highlighted the use of coping strategies in situation which require adjustment to ongoing stress [38]

No statistically significant difference was observed between different groups, males and females, with respect to the mean coping (Table 12).,in this present study.

The mean coping checklist, problem solving, positive distraction, negative distraction, acceptance, denial, social support was not found to be statistically significant ($p>0.05$). However the mean score for religion was found to be statistically significant with ($p<0.05$). This finding is in concordance with Adegbola et at,2007 study, in which they concluded that Spirituality is associated with good health related quality of life.

Dr.Mucsi et al,2008,study emphasis that, more powerful predictors of impaired HRQOL are psychosocial problem such as depression, anxiety, loss of control, and lack of social support.

Agneta A pagels et al,2012, study ,they concluded that all HRQOL dimensions deteriorated significantly with CKD stages with the lowest store in CKD – 5.

SF-36 : The largest differences between the patient groups were seen in physical function, role physical , general health and smallest disparities were seen in mental health and pain..

Dean.A. creado et al 2006, study concluded that problem solving coping showed a significantly correlation with higher level of functioning.,which is not in concordace with the present study.

Troop N.coping, stress and illness the royal society of medicine, curr med literature psychiatry 1994,5.3-8. Troop studies state that emotion focused coping in association with an unsatisfactory outcome whereas problem focused coping is associated with more satisfactory outcome.

Khaled abdel – kader et al, 2009, Study analyzed, Patients with end – stage renal disease receiving maintenance dialysis. They concluded that, multitude of physical, emotional symptom, exhibit particularly high prevalence of depression and experience substantial impairments in QOL.

A Turkish study used the SF-36 to define the effects of co-morbid conditions on HROL in hypertensive individuals. The hypertensive patients had lower SF-36 score more population norms, and a variety of clinical & demographic factors were found to affect HRQOL score. Age and female gender were associated with low SF-36 subscale scores.

In general, studies examine the impact of single or multiple co-morbid illnesses on HROL, have suggested that greater number of co-morbid illnesses are associated with lower HRQOL.

Maria Carolina crz et al, 2011, concluded that QOL is decreasing in renal patients in the early stages of disease. No association was detected between the stages of the disease and the QOL.

## CONCLUSION

The present study investigated the association between defensive coping and quality of life based on physical and mental well-being in patients with chronic kidney disease. Psychological distress, sociodemographic and clinical variables were analyzed to get the impact of emotional defensiveness. The results confirmed previous findings, suggesting that defensive coping and particularly emotion focused and then acceptance relate to worse mental components of quality of life. Overall no negative effects were observed for physical aspects of quality of life, but there were some marginal association.

Although these findings were liable to certain limitations, they have still posed several issues to consider in both clinical practice and

future research: good physical health may not be necessarily accomplished by good mental health and physical health may worsen as a result of long-term emotional defensiveness. So, evaluation of defensive coping in all CKD patients may be warranted to improve both physical and mental health of the individual.

The burden of CKD in the developing world is expected to increase dramatically over the next several years. This relates to the increase in life expectancy, improved economic outlook, and dramatic increase in the incidence of hypertension and diabetes. The different cultures, outlook on life, literacy, economic status, access to basic needs of life, nutritional status, mental health support, and involvement of national health systems stress the need to develop acceptable methodologies for assessing the It is important to consider various factors that have an impact on QOL in the developing world. In many countries, providing basic needs to sustain life takes precedence over QOL assessments. However as the number of CKD patient increases, the focus will need to shift from simply prolonging life to providing a better QOL.

**Limitations**

The findings of the present study should be considered in the context of certain limitations.

First, this was a cross-sectional study and, therefore, issues of temporal association cannot be analyzed. Although it is anticipated that coping style is a relatively stable personality characteristic , we do not have full details about the stability of the defensive copying style and also we cannot exclude the possibility that the disease severity may influence the coping style a or modify its characteristics.

Second, no objective data regarding CKD patients with co-morbid conditions was collected for the study sample and thus it is not possible to analyze association of emotional defensiveness and actual physical health conditions.

Third, the sample have not included ESRD patients and the sample size is small, which is conducted in a single educational centre. Hence, the generalization of the results might be limited. Also the effect of emotional defensiveness on perceived physical health cannot generalize our findings to a border population of dialysis unit.

Fourth, the factors that have limited the external validity of the results is the proportion of CKD patients, accepting to take part in the study. However, it was more likely for patients who refused to be slightly older as well as in dialysis stage, participation of the study was voluntary and most of the patient refused reported lack of time or interest.

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**ANNEXURE-A**

## Socio –demographic profile

1. Age : 20-39yrs /40-59yrs / >60yrs
2. Gender : Male / Female
3. Education : Primary / Middle / Hr.sec /graduate
4. Marital status : Single / Married / divorced / Widower
5. Employment status: Employed / Unemployed / Retired / /domestic / Student
6. Clinical Variances : Pre-dialysis / Dialysis / Post- dialysis /
7. Time since diagnosis : < 1 yr / 1-3 yr / >3 yr

8. Clinical staging : CKD 1, 2,3 / CKD4,5

9. Etiology : Diabetic / Non- diabetic

**ANNEXURE-B**

**COPING CHECKLIST (CCL)**

The purpose of the checklist is to find out how people deal with or handle difficult situations that they have to face .The list provides some of the commonly used methods of handling stress and reducing distress. The patient is asked to keep in mind about the stressful situation that they have experienced and answer each item in the list and say "Yes" if they used the method in relation to the event, and say "No" if they used the method infrequently or not at all. Never omit any item in the list.

**Yes / No:**

1. You go over the problem again and again in your mind, and try to understand it.
2. Accept it since nothing can be done.
3. Talk to a family member who can do something concrete about the problem
4. Get away from things for a while take a rest or a vacation.
5. Compare yourself with other and feel that you are better off.
6. Wish that you can change what has happened.
7. Seek reassurance and emotional support from family members.
8. Try to make yourself feel better by taking drugs.
9. Visit places of worship, go to pilgrimage
10. Go on a shopping spree
11. Engage in vigorous physical exercises
12. Anticipate probable outcomes and mentally rehearse them
13. Console yourself that things are not at all bad and could be worse
14. Try your luck at games of chance(race, lottery, cards)

15. Seek reassurance and support from friends

16. Retreat to a quiet, favorite spot to think things over

17. Try to make yourself feel better by having a drink or two (alcohol)

18. Accept the next best things to what you wanted

19. Think about fantastic or unreal things to make you feel better

20. Try to look on the bright side of things

21. Attend bajan groups

22. Go for long walks

23. Blame your fate, sometimes you just have bad luck

24. Make yourself feel better by smoking

25. Wear a lucky charm or amulet

26. Talk to a friend who can do something about the problem

27. Pray to god

28. Make light of the situation/ refuse to get too serious about it

29. Listen to music for comfort

30. Come up with a couple of different solutions to the problem

31. Try to forget about the whole thing

32. Avoid being with people, seek complete isolation

33. Consult a faith healer

34. Swallow analgesics or minor tranquilizers, not on medical advice

35. Refuse you believe that it happened

36. Attend religious philosophical discourses and talks

37. Start yoga / meditation; practice yoga / meditation

38. Hope a miracle will happen

39. Consult an astrologer

40. Help other in trouble or distress

41. Feel that time will remedy things; the only thing to do is wait

42. Write letters to significant others

43. Prepare yourself for the worst to come

44. Pace up and down thinking about the problem

45. Turn to work / studies to take your mind off things

46. Seek sexual comfort

47. Try to find a purpose or meaning in your suffering

48. Spend time in the company of children

49. View the future as bleak and hopeless

50. Write short stories, poem etc

51. Blame yourself

52. You know what has to be done so you double your efforts an try harder to make things work

53. Analyze the problem and solve it bit by bit

54. Make a plan of action and follow it

55. Read popular guide books for answers to your problem

56. Draw on your past experience of similar situation

57. Take up or indulge in a hobby (music , art etc)

58. Sleep more than usual to avoid the problem

59.Read novels, magazines, etc much more than usual

60. Try to feel better by eating / nibbling

61. Keep your feelings to yourself

62. Make special offerings or perform special pooja's

63. Become a member of a group, club or organization, or if already a

member attend to group activities

64. See more movies than usual

65. Seek professional help and do as they recommend

66. Read books on philosophy or religion

If you use any methods/ that is / are not mentioned above, please write it/ them in the space provided below.

**ANNEXURE-C**

**RAND 36 – Item short form Health Survey SF-36) 1.0 Questionnaire items**

This tool was developed at RAND health as part of the medical outcomes study.

1. In general, would you say your health is?

1) Excellent 2) Very good 3) Good 4) Fair 5) Poor

2. Compared to one year ago, how would you rate your health in general now?

1) Much better now than one year ago

2) Somewhat better now than one year ago

3) About the same

4) Somewhat worse now than one year ago

5) Much worse now than one year ago

Following items are concerned with limitation of activities

3. Vigorous activities, such as running lifting heavy objects, participating in strenuous sports

1) Yes, Limited a lot 2) Yes, Limited a little 3) No, Not limited at all

4. Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf

1) Yes, Limited a lot 2) Yes, Limited a little 3) No, Not limited at all

5. Lifting or carrying groceries

1) Yes, Limited a lot 2) Yes, Limited a little 3)No, Not limited at all

6.Climbing several flights or stairs

1)Yes, Limited a lot 2) Yes, Limited a little 3)No, Not limited at all

7.Climbing one flight or stairs

1)Yes, Limited a lot 2) Yes, Limited a little 3)No, Not limited at all

8. Bending ,Kneeling or stooping

1)Yes, Limited a lot 2) Yes, Limited a little 3)No, Not limited at all

9. Walking more than a mile

1)Yes, Limited a lot 2) Yes, Limited a little 3)No, Not limited at all

10.Walking several blocks

1)Yes, Limited a lot 2) Yes, Limited a little 3)No, Not limited at all

11. Walking one block

1)Yes, Limited a lot 2) Yes, Limited a little 3)No, Not limited at all

12.Bathing or dressing yourself

1)Yes, Limited a lot 2) Yes, Limited a little 3)No, Not limited at all

During the past 4 weeks , have you had any of the following problems with your work or other regular daily activities as a result of your physical health?

13. Cut down the amount of time you spent on work or other activities

1) Yes 2) No

14.Accomplished less than you would like

1) Yes 2) No

15. Were limited in the kind work or other activities

1) Yes 2) No

16. Had difficulty performing the work or other activities ( for example , it took extra effort )

1) Yes 2) No

During the past 4 weeks, have you had any of the following problems with your work or other daily activities as a result of any emotional problems ( such as feeling depressed or anxious )

17. Cut down the amount of time you spent on work or other activities

1) Yes 2) No

18. Accomplished less than you would like

1) Yes 2) No

19. Didn’t do work or other activities as carefully as usual

1) Yes 2) No

20. During the past 4 weeks , to what extend has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbors, or groups

1) Not at all 2)slightly 3) Moderately 4) Quite a bit 5) Extremely

21. How much bodily pain have you had during the past 4 weeks

1) None 2) very mild 3)mild 4)moderate 5) severe 6) very severe

22. During the past 4 weeks how much did pain interfere with your normal work ( including both work outside the home and housework )

1) Not at all 2) slightly 3) Moderately 4) Quite a bit 5) Extremely

23. Did you feel full of pep ?

1) All of the time 2) Most of the time 3) A good bit of the time

4) Some of the time 5) A little of the time 6) none of the time

24. Have you been a very nervous person ?

1)All of the time 2) Most of the time 3) A good bit of the time

4) Some of the time 5) A little of the time 6) none of the time

25. Have you felt so down in the dumps that nothing could cheer you up?

1) All of the time 2) Most of the time 3) A good bit of the time

4) Some of the time 5) A little of the time 6) none of the time

26. Have you felt calm and peaceful ?

1) All of the time 2) Most of the time 3) A good bit of the time

4) Some of the time 5) A little of the time 6) none of the time

27. Did you have a lot of energy ?

1) All of the time 2) Most of the time 3) A good bit of the time

4) Some of the time 5) A little of the time 6) none of the time

28. Have you felt downhearted and blue?

1) All of the time 2) Most of the time 3) A good bit of the time

4) Some of the time 5) A little of the time 6) none of the time

29. Did you feel worn out?

1) All of the time 2) Most of the time 3) A good bit of the time

4) Some of the time 5) A little of the time 6) none of the time

30. Have you been a happy person?

1) All of the time 2) Most of the time 3) A good bit of the time

4) Some of the time 5) A little of the time 6) none of the time

31. Did you feel tied?

1) All of the time 2) Most of the time 3) A good bit of the time

4) Some of the time 5) A little of the time 6) none of the time

32. During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting friends, relatives, etc.)?

1) All of the time 2) Most of the time 3) Some of the time

4) A little of the time

How TRUE or FALSE is each of the following statements for you?

33. I seem to get sick a little easier than other people

1) Definitely true 2) mostly true 3) Don’t know 4) mostly false

5) Definitely false

34. I am as healthy as anybody knows.

1) Definitely true 2) mostly true 3) Don’t know 4) mostly false

5) Definitely false

35. I expect my health to get worse.

1) Definitely true 2) mostly true 3) Don’t know 4) mostly false

5) Definitely false

36. My health is excellent.

1) Definitely true 2) mostly true 3) Don’t know 4) mostly false

5) Definitely false

**ANNEXURE-D**

**HOPKINS SYMPTOM CHECKLIST (HSCL-25)**

**PART I: ANXIETY SYMPTOMS**

1. Suddenly scared for no reason

1.Not at all 2.A little 3.Quite a bit 4.Extremely

2.Feeling fearful

1. Not at all 2.A little 3.Quite a bit 4.Extremely

3.Faintness, dizziness or weakness

1. Not at all 2.A little 3.Quite a bit 4.Extremely

4.Nervousness or shakiness inside

1. Not at all 2.A little 3.Quite a bit 4.Extremely

5.Heart pounding or racin

1. Not at all 2.A little 3.Quite a bit 4.Extremely

6. Trembling

1. Not at all 2.A little 3.Quite a bit 4.Extremely

7.Feeling tensed or keyed up

1. Not at all 2.A little 3.Quite a bit 4.Extremely

8.Headache

1. Not at all 2.A little 3.Quite a bit 4.Extremely

9.Spell of terror or panic

1. Not at all 2.A little 3.Quite a bit 4.Extremely

10.Feeling restless or can’t sit still

1. Not at all 2.A little 3.Quite a bit 4.Extremely

**PART II : DEPRESSI VE SYMPTOMS**

11.Feeling low in energy, slowed down

1. Not at all 2.A little 3.Quite a bit 4.Extremely

12.Blaming yourself for things

1. Not at all 2.A little 3.Quite a bit 4.Extremely

13.Crying easily

1. Not at all 2.A little 3.Quite a bit 4.Extremely

14.Loss of sexual interest or pleasure

1. Not at all 2.A little 3.Quite a bit 4.Extremely

15.Poor appetite

1. Not at all 2.A little 3.Quite a bit 4.Extremely

16. Difficulty falling asleep, staying asleep

1. Not at all 2.A little 3.Quite a bit 4.Extremely

17.Feeling hopeless about the future

1. Not at all 2.A little 3.Quite a bit 4.Extremely

18.Feeling blue

1. Not at all 2.A little 3.Quite a bit 4.Extremely

19.Feeling lonely

1. Not at all 2.A little 3.Quite a bit 4.Extremely

20.Thought of ending your life

1. Not at all 2.A little 3.Quite a bit 4.Extremely

21.Feeling of being trapped or caught

1. Not at all 2.A little 3.Quite a bit 4.Extremely

22.Worry too much about things

1. Not at all 2.A little 3.Quite a bit 4.Extremely

23.Feeling no interest in things

1. Not at all 2.A little 3.Quite a bit 4.Extremely

24.Feeling everything is an effort

1. Not at all 2.A little 3.Quite a bit 4.Extremely

25.Feeling of worthlessness

1. Not at all 2.A little 3.Quite a bit 4.Extremely

**Scoring** :

$$\text{Anxiety score} = \frac{\text{Item 1-10}}{10}$$

$$\text{Depression score} = \frac{\text{Item 11-25}}{25}$$

**Interpretation**: Individuals with scores on anxiety and / or depression and / or total greater than 1.75 are considered symptomatic.

Key to master chart

Socio –demographic profile

10. Age: 20-39= 1 40-59 =2 >60=3

11. Gender : Male = 1 Female = 2

12. Education : Primary = 1 Middle = 2 Hr.sec = 3 graduate = 4

13. Marital status:Single = 1 Married = 2 divorced = 3 Widower = 4

14. Eployment status: Employed = 1 UnEmployed = 2 Retired = 3 domestic = 4 Student = 5

15. Clinical Variances : Predialysis = 1 Dialysis = 2 Post-dialysis = 3

16. Time series diagnosis : < 1 yr = 1 1-3 yr = 2 >3 yr = 3

17. Clinical staging : CKD 123 = 1 CKD4,5 = 2

18. Etiology: Diabetic = 1 Non- diabetic = 2

COPING CHECH LIST (TOTAL 9 ITEMS)

1. Problem solving = 0.10

2. Positive distraction = 0.14

3. Negative distraction = 0.9

4. Acceptance = 0.11

5. Religon = 0.9

6. Denial = 0.11

7. Emotional focused (total of 3, 5, 6&7) = 0.54

8. Social support = 0.6

9. Total score = 0.70

# MASTER CHART

| | | socio demographic profile | | | | | | | | | | DEFENSIVE COPING FACTORS | | | | | | | | SF- 36 QUESTIONNAIRE | | | | | | | | | | | | | | | | | | HSCL-25 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | COPING CHECKLIST | | | | | | | | PHYSICAL COMPONENT SUMMARY | | | | | MENTAL COMPONENT SUMMARY | | | | | | | | | true or false | | | | | |
| Sl.No | Name | Age | gender | Education | Marital Status | Employment Status | clinical stage | Clinical Variables | time since diagnosis | etiology | Problem solving | positive distraction | negative distraction | acceptance | religion | denial | emotion focussed | social support | Health Status | Compare to one year | limitation of activities | Cut down time of work | Extra effort | Pain grading | Pain interfering with work | interfering with social activity | cut down time | accomplished less | not doing work | Full of pep | nervous | nothing could cheer up | calm/peaceful | feel tied | Sick easier than others | Healthy as anybody | Expect health | Health is excellent | Anxiety score | Depressive score |
| 1 | ravi char | 2 | 1 | 2 | 2 | 1 | 2 | 3 | 1 | 1 | 4 | 6 | 1 | 9 | 5 | 3 | 11 | 6 | 3 | 4 | 1 | 1 | 1 | 3 | 3 | 1 | 1 | 1 | 1 | 3 | 6 | 6 | 2 | 5 | 2 | 2 | 4 | 3 | 1 | 1 |
| 2 | selvam | 2 | 1 | 1 | 1 | 1 | 2 | 3 | 3 | 2 | 4 | 4 | 0 | 5 | 2 | 2 | 9 | 3 | 1 | 1 | 2 | 1 | 1 | 5 | 3 | 5 | 1 | 1 | 1 | 6 | 5 | 6 | 5 | 5 | 4 | 1 | 2 | 5 | 1.2 | 1 |
| 3 | Tangam | 2 | 2 | 1 | 2 | 4 | 2 | 3 | 2 | 2 | 7 | 7 | 1 | 6 | 6 | 3 | 23 | 3 | 1 | 1 | 1 | 1 | 1 | 4 | 3 | 3 | 1 | 1 | 2 | 4 | 5 | 3 | 4 | 3 | 2 | 3 | 2 | 4 | 1 | 1 |
| 4 | Senthil k | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 8 | 1 | 0 | 7 | 1 | 3 | 7 | 5 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 1 | 1 | 1 | 6 | 4 | 3 | 2 | 3 | 2 | 4 | 1 | 5 | 1 | 1.04 |
| 5 | Munniya | 2 | 1 | 3 | 2 | 1 | 2 | 1 | 3 | 1 | 1 | 2 | 0 | 4 | 2 | 3 | 12 | 5 | 2 | 1 | 3 | 1 | 1 | 3 | 3 | 4 | 1 | 1 | 1 | 6 | 5 | 4 | 3 | 3 | 2 | 4 | 2 | 5 | 1 | 0.92 |
| 6 | Pushpam | 3 | 2 | 1 | 4 | 4 | 2 | 2 | 2 | 2 | 3 | 5 | 0 | 4 | 2 | 8 | 19 | 4 | 2 | 1 | 2 | 1 | 1 | 4 | 3 | 3 | 1 | 1 | 1 | 6 | 6 | 4 | 6 | 3 | 2 | 5 | 2 | 5 | 1 | 0.6 |
| 7 | Indrani | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 3 | 1 | 1 | 1 | 0 | 7 | 1 | 3 | 9 | 0 | 2 | 1 | 2 | 2 | 1 | 3 | 2 | 3 | 2 | 2 | 1 | 6 | 6 | 4 | 4 | 2 | 2 | 4 | 1 | 5 | 1.3 | 1 |
| 8 | Vennilla | 1 | 2 | 3 | 2 | 1 | 2 | 1 | 3 | 2 | 3 | 6 | 0 | 8 | 2 | 3 | 7 | 5 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 6 | 2 | 3 | 4 | 4 | 2 | 4 | 2 | 5 | 1 | 1.2 |
| 9 | Logamba | 2 | 2 | 3 | 2 | 4 | 2 | 3 | 1 | 2 | 10 | 8 | 1 | 8 | 7 | 4 | 8 | 4 | 2 | 2 | 5 | 2 | 2 | 1 | 1 | 3 | 2 | 2 | 2 | 4 | 4 | 3 | 3 | 3 | 2 | 3 | 4 | 4 | 1 | 0.6 |
| 10 | rajamma | 3 | 2 | 2 | 4 | 3 | 2 | 3 | 1 | 1 | 6 | 1 | 1 | 5 | 0 | 1 | 8 | 4 | 2 | 2 | 4 | 1 | 1 | 4 | 4 | 5 | 1 | 2 | 1 | 2 | 4 | 4 | 2 | 4 | 4 | 4 | 1 | 5 | 1 | 1 |
| 11 | Jeya | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 7 | 3 | 1 | 7 | 5 | 2 | 18 | 4 | 2 | 1 | 3 | 2 | 2 | 1 | 1 | 3 | 2 | 2 | 2 | 4 | 5 | 3 | 3 | 3 | 5 | 3 | 2 | 4 | 1 | 0.92 |
| 12 | Kamatch | 2 | 2 | 1 | 2 | 4 | 2 | 1 | 2 | 2 | 5 | 4 | 0 | 7 | 3 | 8 | 22 | 3 | 3 | 4 | 1 | 1 | 1 | 3 | 3 | 1 | 1 | 1 | 1 | 3 | 6 | 6 | 2 | 5 | 2 | 2 | 4 | 3 | 1.2 | 0.8 |
| 13 | Chitra | 1 | 2 | 2 | 2 | 4 | 2 | 1 | 3 | 2 | 3 | 2 | 0 | 8 | 1 | 2 | 11 | 5 | 1 | 1 | 2 | 1 | 1 | 5 | 3 | 5 | 1 | 1 | 1 | 6 | 5 | 6 | 5 | 5 | 4 | 1 | 2 | 5 | 1 | 0.6 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14 | Nagaraja | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 6 | 5 | 1 | 7 | 4 | 3 | 12 | 5 | 1 | 1 | 1 | 1 | 1 | 4 | 3 | 3 | 1 | 1 | 2 | 6 | 6 | 4 | 6 | 3 | 2 | 5 | 2 | 5 | 1 | 1 |
| 15 | Rangaraj | 2 | 1 | 3 | 2 | 1 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 5 | 4 | 8 | 21 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 1 | 1 | 1 | 6 | 4 | 3 | 2 | 3 | 2 | 4 | 1 | 5 | 1 | 0.92 |
| 16 | pannerse | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 3 | 2 | 0 | 7 | 8 | 4 | 19 | 5 | 2 | 1 | 3 | 1 | 1 | 3 | 3 | 4 | 1 | 1 | 1 | 6 | 5 | 4 | 3 | 3 | 2 | 4 | 2 | 5 | 1 | 0.6 |
| 17 | Thangaly | 2 | 1 | 4 | 2 | 1 | 2 | 1 | 2 | 2 | 5 | 3 | 0 | 4 | 5 | 7 | 17 | 0 | 2 | 1 | 2 | 1 | 1 | 4 | 3 | 3 | 1 | 1 | 1 | 6 | 6 | 4 | 6 | 3 | 2 | 5 | 2 | 5 | 1 | 0.68 |
| 18 | Udhayra | 2 | 1 | 3 | 2 | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 5 | 6 | 3 | 15 | 5 | 2 | 1 | 2 | 2 | 1 | 3 | 2 | 3 | 2 | 2 | 1 | 6 | 6 | 4 | 4 | 2 | 2 | 4 | 1 | 5 | 1.1 | 0.6 |
| 19 | Annadur | 3 | 1 | 2 | 4 | 1 | 2 | 3 | 3 | 1 | 5 | 4 | 0 | 4 | 5 | 8 | 9 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 6 | 2 | 3 | 4 | 4 | 2 | 4 | 2 | 5 | 1 | 1 |
| 20 | Thavasi | 2 | 1 | 3 | 2 | 2 | 2 | 3 | 3 | 1 | 3 | 3 | 1 | 6 | 5 | 5 | 9 | 5 | 2 | 2 | 5 | 2 | 2 | 1 | 1 | 3 | 2 | 2 | 2 | 4 | 4 | 3 | 3 | 3 | 2 | 3 | 4 | 4 | 1.3 | 1 |
| 21 | Indirani | 2 | 2 | 2 | 2 | 4 | 2 | 3 | 3 | 1 | 3 | 2 | 0 | 4 | 2 | 2 | 10 | 3 | 2 | 2 | 4 | 1 | 1 | 4 | 4 | 5 | 1 | 2 | 1 | 2 | 4 | 4 | 2 | 4 | 4 | 4 | 1 | 5 | 1 | 1 |
| 22 | Chandra | 3 | 1 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 5 | 0 | 7 | 1 | 2 | 15 | 5 | 2 | 1 | 3 | 2 | 2 | 1 | 1 | 3 | 2 | 2 | 2 | 4 | 5 | 3 | 3 | 3 | 5 | 3 | 2 | 4 | 1 | 1 |
| 23 | Arunach | 2 | 1 | 2 | 2 | 3 | 2 | 3 | 3 | 2 | 5 | 5 | 1 | 7 | 2 | 2 | 17 | 4 | 3 | 4 | 1 | 1 | 1 | 3 | 3 | 1 | 1 | 1 | 1 | 3 | 6 | 6 | 2 | 5 | 2 | 2 | 4 | 3 | 1 | 0.72 |
| 24 | Selvam | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 3 | 3 | 0 | 6 | 1 | 4 | 8 | 5 | 1 | 1 | 2 | 1 | 1 | 5 | 3 | 5 | 1 | 1 | 1 | 6 | 5 | 6 | 5 | 5 | 4 | 1 | 2 | 5 | 1 | 0.6 |
| 25 | kathaiya | 2 | 1 | 3 | 3 | 1 | 2 | 1 | 3 | 1 | 5 | 4 | 0 | 8 | 7 | 4 | 23 | 5 | 1 | 1 | 1 | 1 | 1 | 4 | 3 | 3 | 1 | 1 | 2 | 6 | 6 | 4 | 6 | 3 | 2 | 5 | 2 | 5 | 1.4 | 0.6 |
| 26 | vikramat | 2 | 1 | 3 | 2 | 2 | 2 | 1 | 3 | 2 | 5 | 8 | 2 | 7 | 5 | 5 | 8 | 5 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 1 | 1 | 1 | 6 | 4 | 3 | 2 | 3 | 2 | 4 | 1 | 5 | 1.4 | 0.92 |
| 27 | kennedy | 2 | 1 | 2 | 2 | 1 | 2 | 3 | 3 | 1 | 4 | 3 | 0 | 7 | 5 | 6 | 11 | 5 | 2 | 1 | 3 | 1 | 1 | 3 | 3 | 4 | 1 | 1 | 1 | 6 | 5 | 4 | 3 | 3 | 2 | 4 | 2 | 5 | 1 | 0.6 |
| 28 | mathi | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 5 | 4 | 0 | 9 | 4 | 5 | 22 | 2 | 2 | 1 | 2 | 1 | 1 | 4 | 3 | 3 | 1 | 1 | 1 | 6 | 6 | 4 | 6 | 3 | 2 | 5 | 2 | 5 | 1 | 0.6 |
| 29 | kesavan | 3 | 1 | 2 | 4 | 4 | 2 | 1 | 2 | 1 | 6 | 5 | 2 | 6 | 6 | 2 | 19 | 3 | 2 | 1 | 2 | 2 | 1 | 3 | 2 | 3 | 2 | 2 | 1 | 6 | 6 | 4 | 4 | 2 | 2 | 4 | 1 | 5 | 1 | 0.6 |
| 30 | vaduvam | 3 | 1 | 3 | 2 | 4 | 2 | 1 | 3 | 1 | 6 | 6 | 1 | 7 | 1 | 3 | 18 | 5 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 6 | 2 | 3 | 4 | 4 | 2 | 4 | 2 | 5 | 1 | 0.6 |
| 31 | Jamuna | 3 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 4 | 6 | 1 | 9 | 5 | 3 | 11 | 6 | 2 | 2 | 5 | 2 | 2 | 1 | 1 | 3 | 2 | 2 | 2 | 4 | 4 | 3 | 3 | 3 | 2 | 3 | 4 | 4 | 1.1 | 0.6 |
| 32 | Mari | 2 | 1 | 3 | 2 | 2 | 2 | 1 | 3 | 1 | 4 | 4 | 0 | 5 | 2 | 2 | 12 | 3 | 2 | 2 | 4 | 1 | 1 | 4 | 4 | 5 | 1 | 2 | 1 | 2 | 4 | 4 | 2 | 4 | 4 | 4 | 1 | 5 | 1 | 0.6 |
| 33 | Kokila | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 7 | 7 | 1 | 6 | 6 | 3 | 11 | 3 | 2 | 1 | 3 | 2 | 2 | 1 | 1 | 3 | 2 | 2 | 2 | 4 | 5 | 3 | 3 | 3 | 5 | 3 | 2 | 4 | 1 | 0.6 |
| 34 | Parvathi | 3 | 2 | 2 | 2 | 4 | 2 | 2 | 3 | 2 | 8 | 1 | 0 | 7 | 1 | 3 | 13 | 5 | 3 | 4 | 1 | 1 | 1 | 3 | 3 | 1 | 1 | 1 | 1 | 3 | 6 | 6 | 2 | 5 | 2 | 2 | 4 | 3 | 1 | 0.76 |
| 35 | Ayyanpe | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 0 | 4 | 2 | 3 | 11 | 5 | 1 | 1 | 2 | 1 | 1 | 5 | 3 | 5 | 1 | 1 | 1 | 6 | 5 | 6 | 5 | 5 | 4 | 1 | 2 | 5 | 1.3 | 0.6 |
| 36 | sekar | 3 | 1 | 3 | 2 | 1 | 2 | 2 | 2 | 1 | 3 | 5 | 0 | 4 | 2 | 8 | 8 | 4 | 1 | 1 | 1 | 1 | 1 | 4 | 3 | 3 | 1 | 1 | 2 | 6 | 6 | 4 | 6 | 3 | 2 | 5 | 2 | 5 | 1 | 0.72 |
| 37 | Pandiyar | 2 | 1 | 3 | 2 | 2 | 2 | 3 | 3 | 2 | 1 | 1 | 0 | 7 | 1 | 3 | 9 | 0 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 1 | 1 | 1 | 6 | 4 | 3 | 2 | 3 | 2 | 4 | 1 | 5 | 1.1 | 0.92 |
| 38 | Southara | 3 | 1 | 2 | 2 | 4 | 2 | 1 | 3 | 2 | 3 | 6 | 0 | 8 | 2 | 3 | 12 | 5 | 2 | 1 | 3 | 1 | 1 | 3 | 3 | 4 | 1 | 1 | 1 | 6 | 5 | 4 | 3 | 3 | 2 | 4 | 2 | 5 | 1.1 | 0.92 |
| 39 | ravi chan | 2 | 1 | 3 | 2 | 3 | 2 | 3 | 2 | 1 | 10 | 8 | 1 | 8 | 7 | 4 | 9 | 4 | 2 | 1 | 2 | 1 | 1 | 4 | 3 | 3 | 1 | 1 | 1 | 6 | 6 | 4 | 6 | 3 | 2 | 5 | 2 | 5 | 1 | 0.6 |
| 40 | Mahalin | 2 | 1 | 3 | 1 | 2 | 2 | 3 | 1 | 1 | 6 | 1 | 1 | 5 | 0 | 1 | 7 | 4 | 2 | 1 | 2 | 2 | 1 | 3 | 2 | 3 | 2 | 2 | 1 | 6 | 6 | 4 | 4 | 2 | 2 | 4 | 1 | 5 | 1 | 0.72 |
| 41 | valarmat | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 1 | 7 | 3 | 1 | 7 | 5 | 2 | 14 | 4 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 6 | 2 | 3 | 4 | 4 | 2 | 4 | 2 | 5 | 1 | 0.72 |
| 42 | Danasely | 3 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 1 | 5 | 4 | 0 | 7 | 3 | 8 | 21 | 3 | 2 | 2 | 5 | 2 | 2 | 1 | 1 | 3 | 2 | 2 | 2 | 4 | 4 | 3 | 3 | 3 | 2 | 3 | 4 | 4 | 1 | 0.6 |
| 43 | Sumathy | 2 | 2 | 1 | 3 | 4 | 2 | 3 | 3 | 2 | 3 | 2 | 0 | 8 | 1 | 2 | 14 | 5 | 2 | 2 | 4 | 1 | 1 | 4 | 4 | 5 | 1 | 2 | 1 | 2 | 4 | 4 | 2 | 4 | 4 | 4 | 1 | 5 | 1 | 0.6 |
| 44 | Rani | 2 | 2 | 4 | 2 | 2 | 2 | 3 | 2 | 1 | 6 | 5 | 1 | 7 | 4 | 3 | 19 | 5 | 2 | 1 | 3 | 2 | 2 | 1 | 1 | 3 | 2 | 2 | 2 | 4 | 5 | 3 | 3 | 3 | 5 | 3 | 2 | 4 | 1.4 | 0.6 |
| 45 | Raj kumo | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 3 | 2 | 2 | 5 | 4 | 8 | 20 | 1 | 2 | 1 | 3 | 1 | 1 | 3 | 3 | 4 | 1 | 1 | 1 | 6 | 5 | 4 | 3 | 3 | 2 | 4 | 2 | 5 | 1.1 | 0.6 |
| 46 | Vasantha | 2 | 2 | 3 | 2 | 1 | 2 | 3 | 3 | 2 | 3 | 2 | 0 | 7 | 8 | 4 | 18 | 5 | 2 | 1 | 2 | 1 | 1 | 4 | 3 | 3 | 1 | 1 | 1 | 6 | 6 | 4 | 6 | 3 | 2 | 5 | 2 | 5 | 1 | 0.76 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 80 | Velliyam | 2 | 2 | 3 | 2 | 2 | 2 | 1 | 2 | 1 | 3 | 3 | 1 | 6 | 5 | 5 | 25 | 5 | 3 | 4 | 1 | 1 | 1 | 3 | 3 | 1 | 1 | 1 | 1 | 3 | 6 | 6 | 2 | 5 | 2 | 2 | 4 | 3 | 1 | 0.6 |
| 81 | Thawasu | 3 | 2 | 2 | 2 | 1 | 2 | 1 | 3 | 2 | 3 | 2 | 0 | 4 | 2 | 2 | 10 | 3 | 1 | 1 | 2 | 1 | 1 | 5 | 3 | 5 | 1 | 1 | 1 | 6 | 5 | 6 | 5 | 5 | 4 | 1 | 2 | 5 | 1 | 0.6 |
| 82 | Ponnamı | 3 | 2 | 2 | 2 | 4 | 2 | 1 | 3 | 2 | 4 | 5 | 0 | 7 | 1 | 2 | 11 | 5 | 1 | 1 | 1 | 1 | 1 | 4 | 3 | 3 | 1 | 1 | 2 | 6 | 6 | 4 | 6 | 3 | 2 | 5 | 2 | 5 | 1 | 0.72 |
| 83 | Elangaiy | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 3 | 1 | 5 | 5 | 1 | 7 | 2 | 2 | 13 | 4 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 1 | 1 | 1 | 6 | 4 | 3 | 2 | 3 | 2 | 4 | 1 | 5 | 1.2 | 0.72 |
| 84 | Pushpav | 2 | 2 | 3 | 2 | 1 | 2 | 2 | 1 | 2 | 3 | 3 | 0 | 6 | 1 | 4 | 14 | 5 | 2 | 1 | 3 | 1 | 1 | 3 | 3 | 4 | 1 | 1 | 1 | 6 | 5 | 4 | 3 | 3 | 2 | 4 | 2 | 5 | 1.1 | 0.6 |
| 85 | Elavarasu | 2 | 1 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 5 | 4 | 0 | 8 | 7 | 4 | 12 | 5 | 2 | 1 | 2 | 1 | 1 | 4 | 3 | 3 | 1 | 1 | 1 | 6 | 6 | 4 | 6 | 3 | 2 | 5 | 2 | 5 | 1 | 0.6 |
| 86 | pushpam | 3 | 2 | 2 | 2 | 4 | 2 | 1 | 3 | 1 | 5 | 8 | 2 | 7 | 5 | 5 | 27 | 5 | 2 | 1 | 2 | 2 | 1 | 3 | 2 | 3 | 2 | 2 | 1 | 6 | 6 | 4 | 4 | 2 | 2 | 4 | 1 | 5 | 1 | 0.72 |
| 87 | Mathi | 2 | 2 | 3 | 2 | 3 | 2 | 1 | 3 | 1 | 4 | 3 | 0 | 7 | 5 | 6 | 21 | 5 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 6 | 2 | 3 | 4 | 4 | 2 | 4 | 2 | 5 | 1.3 | 0.72 |
| 88 | Dhanapa | 2 | 1 | 3 | 1 | 2 | 2 | 1 | 3 | 1 | 5 | 4 | 0 | 9 | 4 | 5 | 15 | 2 | 2 | 2 | 5 | 2 | 2 | 1 | 1 | 3 | 2 | 2 | 2 | 4 | 4 | 3 | 3 | 3 | 2 | 3 | 4 | 4 | 1.1 | 1.2 |
| 89 | Sumathy | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 1 | 6 | 5 | 2 | 6 | 6 | 2 | 19 | 3 | 2 | 2 | 4 | 1 | 1 | 4 | 4 | 5 | 1 | 2 | 1 | 2 | 4 | 4 | 2 | 4 | 4 | 4 | 1 | 5 | 1.1 | 1.2 |
| 90 | Samiyap | 3 | 1 | 1 | 2 | 2 | 2 | 3 | 2 | 2 | 6 | 6 | 1 | 7 | 1 | 3 | 18 | 5 | 2 | 1 | 3 | 2 | 2 | 1 | 1 | 3 | 2 | 2 | 2 | 4 | 5 | 3 | 3 | 3 | 5 | 3 | 2 | 4 | 1.4 | 0.72 |
| 91 | sakthive | 2 | 1 | 1 | 3 | 4 | 2 | 3 | 3 | 1 | 5 | 4 | 0 | 8 | 7 | 4 | 22 | 5 | 2 | 1 | 3 | 1 | 1 | 3 | 3 | 4 | 1 | 1 | 1 | 6 | 5 | 4 | 3 | 3 | 2 | 4 | 2 | 5 | 1.6 | 0.72 |
| 92 | Vijayaku | 3 | 1 | 4 | 2 | 2 | 2 | 3 | 3 | 1 | 5 | 8 | 2 | 7 | 5 | 5 | 26 | 5 | 2 | 1 | 2 | 1 | 1 | 4 | 3 | 3 | 1 | 1 | 1 | 6 | 6 | 4 | 6 | 3 | 2 | 5 | 2 | 5 | 1 | 1.2 |
| 93 | Shanmu | 2 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 1 | 4 | 3 | 0 | 7 | 5 | 6 | 15 | 5 | 1 | 1 | 1 | 1 | 1 | 4 | 3 | 3 | 1 | 1 | 2 | 6 | 6 | 4 | 6 | 3 | 2 | 5 | 2 | 5 | 1.3 | 1.2 |
| 94 | Srinivasa | 2 | 1 | 3 | 2 | 1 | 2 | 3 | 2 | 1 | 5 | 4 | 0 | 9 | 4 | 5 | 15 | 2 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 1 | 1 | 1 | 6 | 4 | 3 | 2 | 3 | 2 | 4 | 1 | 5 | 1 | 1.2 |
| 95 | Ganapati | 2 | 1 | 2 | 2 | 1 | 2 | 3 | 3 | 2 | 6 | 5 | 2 | 6 | 6 | 2 | 17 | 3 | 2 | 1 | 3 | 1 | 1 | 3 | 3 | 4 | 1 | 1 | 1 | 6 | 5 | 4 | 3 | 3 | 2 | 4 | 2 | 5 | 1 | 0.76 |
| 96 | Anbalag | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 3 | 1 | 6 | 6 | 1 | 7 | 1 | 3 | 18 | 5 | 2 | 1 | 2 | 1 | 1 | 4 | 3 | 3 | 1 | 1 | 1 | 6 | 6 | 4 | 6 | 3 | 2 | 5 | 2 | 5 | 1.1 | 0.72 |
| 97 | Nadanar | 3 | 1 | 1 | 2 | 4 | 2 | 1 | 3 | 2 | 4 | 6 | 1 | 9 | 5 | 3 | 11 | 6 | 2 | 1 | 2 | 2 | 1 | 3 | 2 | 3 | 2 | 2 | 1 | 6 | 6 | 4 | 4 | 2 | 2 | 4 | 1 | 5 | 1 | 0.6 |
| 98 | Nagoora | 3 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 4 | 4 | 0 | 5 | 2 | 2 | 13 | 3 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 6 | 2 | 3 | 4 | 4 | 2 | 4 | 2 | 5 | 1 | 1.2 |